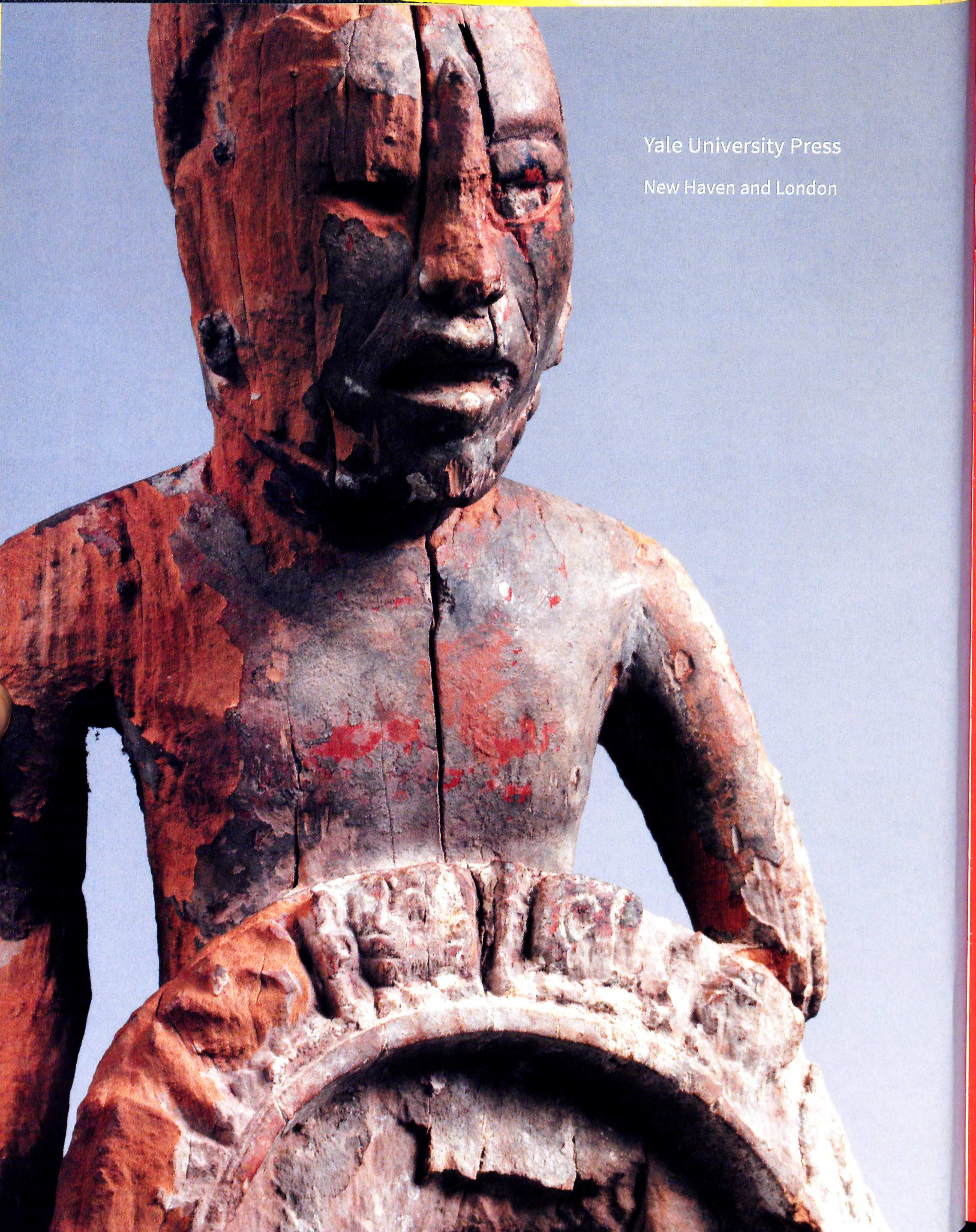
# The Life Within



Yale University Press
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# THE LIFE

## CLASSIC MAYA AND TH

STEPHEN HOUSTON

# WITHIN

## E MATTER OF PERMANENCE

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JACKET ILLUSTRATIONS: (*front*) Ruler on throne, with dwarf, jade, c. A.D. 700, purportedly from Teotihuacan, Mexico (Trustees of the British Museum, London, AM1938.1021.25). Photograph by Justin Kerr, © Justin Kerr; (*back*) Covered bowl reproducing basket coils, Yaloche Cream Polychrome, El Peru, Burial 24, c. A.D. 400, Guatemala, photograph courtesy Michelle Rich.

FRONTISPIECE: A wooden servant, c. A.D. 700 (detail of fig. 3).

PAGE VIII: A Late Classic bowl, c. A.D. 700 (fig. 28).

Till mina kära syskon,

sister and brother,

Christina och Christopher,

Monica ocksa

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# PREFACE

I HAVE A habit that is both unconscious and compulsive. A place does not seem real unless I touch a wall or pass my hand along the bark of a tree or feel the rough texture of stone. Then, somehow, I am there, completely in that time and place. A memory of it takes root. It turns out that matter means something to me. Another fixation is more aesthetic than cognitive. It concerns stone. Whatever the level of skill, an over-polished sculpture from the nineteenth century repels me. I can't help it: viscerally, emotionally, the carving fails to appeal in any way whatsoever. Not so the surface of a Michelangelo Slave, a prismatic block by Isamu Noguchi, or a late Aztec carving, puffed out, inflating as if by some mysterious internal pressure. The contrasts of polish and texture—a perceived softness, a real hardness, a warmth that, on touch, turns out to be cold—deny yet affirm their stony nature. These things please and intrigue me. They get right at the paradoxes that make life interesting. This book extends my idiosyncrasies to yet other times and places. It asks, what did the Classic Maya of the first millennium A.D., in cities within and near the Yucatan peninsula, think of such matter(s)? Matter they could touch, shape, undo, and remake? The lasting appeal of the ancient Maya is their ceaseless ability to surprise us. These questions offer novel ways for them to take our breath away.

But there is sadness, too. Trained as an archaeologist, I have excavated ceramics by the ton, uncovered buildings, stone sculptures, held jade in my hand (cool, almost greasy to feel), washed seashell, and found remnants of wood and cloth. I have also glued sherds and patched walls. Yet, in the final analysis, decay seems always to win. Even jade will crack to flame and a hard wallop. Archaeologists seldom acknowledge the fact that we work in a gloomy business. Everywhere are reminders of futility and decline. By definition, a past civilization, like a biography, always ends badly. But here is the thing: the ancient Maya fought back with courage and panache. They took what would pass, the most ephemeral of things, and sought to make them last. This book shows how.

It looks first at Classic Maya views of the workable matter in their world, the stones, precious or not, but also woods, fabrics, fired clays, skins and pelts, gourds, bark, and paper. An exemplary book by Andrea Stone and Marc Zender, referenced in later chapters, has started this task. The second part describes how the Maya played with matter, making it, by varied means, harder, like-but-different or different-but-like, depending on one's view or emphasis. A process that de-textured, re-textured, and transformed, it also made things more permanent. These concerns became most acute at moments of political and social turbulence, as part of what Matthew Liebmann has called an "innovative materiality." Courtly competition also played a role. A third chapter examines the claimed vitality of matter along with the livening, literally so, of sacred speech in Maya writing. There is serious play in this, along with playful solemnity. Pleasure and fun, wit too, can coexist with a desire, addressed in the final chapter, to thwart entropy, to find renewal and shelter in hard things. There, at the core of the Maya image and text pulses an aesthetic of life and effort.

In this, the Classic Maya declare a broader truth. The play of matter, the perception and infusion of vitality—indeed, the very act of representation—reflect many functions and histories. But, in essence, they all serve to counter decay. They recognize a world that must perish yet, with cunning, and in altered and marked form, will somehow be made to survive and endure. The anxiety is that the goal will prove impossible, yet optimism promises otherwise: "doubt isn't the opposite of faith; it is an element of faith," said the theologian Paul Tillich, in *The Dynamics of Faith*. In works of skill and wonder, the Maya surrendered to hope.

This book exists because others have been kind. Above all, Brown University gave a sabbatical, with supplementary support, facilitated by then-dean Rajiv Vohra. A MacArthur Fellowship helped too, offsetting the usual worries about family expense and making ends meet. The Sterling and Frances Clark Institute awarded a residential fellowship in the peace and bibliographic richness of Williamstown, Massachusetts. Its director, the ebullient Michael Conforti, and the head of the research program, Michael Ann Holly, a new hero of mine, enriched the year no end, as did other fellows in the program: Esra Akcan, Dore Bowen, Lisa Corrin, Gao Shiming, Ivan Gaskell (with Jane), Dennis Geronimus, Charlotte Klonk, Frank Korom, Esther da Costa Meyer, Heather Hyde Minor (with Vernon), Mary Kate O'Hare (with Chris and Maya), Bruce Redford (Dennis, too), and Jenny Reynaerts—in plain fact, more than fellows, they are friends. Keith Moxey, best of people, was a thoughtful listener and reader. Ashley Lazevnick, my research assistant at the Clark, offered help throughout.

On the evidence for skeuomorphs and how best to interpret them, my thanks go to Catherine Frieman and Linda Hurcombe, who responded from across the Atlantic. Scott Ortman, too, shared his sharp work on metaphors and cross-media productions among the Ancestral Pueblo. Claudia Brittenham advised on several chapters, too, as a reader for Yale University Press, as did Andrea Stone. Their comments were most

insightful and collegial. For pyroengraving in the Andes, there can be no better source than Jeffrey Quilter, who shared unpublished research. Thoughts on step-frets came from Rebecca Stone, on dating at Mitla, from Arthur Joyce and John Pohl, on Near Eastern sources, Joy McCorriston, and from Louis Burkhart on points of Nahuatl. John Baines, Laurel Bestock, and Maggie Bickford offered good information about ephemerality in Egypt and China. Guilhem Olivier reminded me of stony men in Mixtec codices. Kerry Hull gave useful input about the nature of "things" among the Maya, the Ch'orti' in particular, as did Danny Law. Charles Golden, Andrew Scherer, and Scott Hutson advised on most chapters, to positive effect: *un fuerte abrazo* to such friends and colleagues. Karl Taube inspired as usual; his reading improved all chapters, as did discussion with another indispensable colleague, Dave Stuart.

Some of the thoughts were presented in different form to audiences at the University of Southern California, as facilitated by Megan O'Neil, and the Cotsen Institute at the University of California, Los Angeles, through an invitation from John Papadopoulos and Gary Urton. Joanne Pillsbury, then at Dumbarton Oaks, gave a forum to develop other ideas. She has always encouraged more than she knows. Patricia Fidler, editor at Yale University Press, was most heartening too, as was Katherine Boller, also of the press, and expert copy-editor Phillip King. A timely grant from the Humanities Fund of the Vice President for Research at Brown, facilitated by my department chair, Dan Smith, helped to pay for figures. Others of great assistance with illustrations were: Daniel Aquino, Elise Auerbach, Tim Beach, Elizabeth Boone, Marcello Canuto, Nicholas Carter (who drew several, at short notice), Arlen and Diane Chase, John Clark, Arlen Colman, Jean-Pierre Courau, Jennifer Dibbern, Barbara Fash, Laura Filloy Nadal and Leonardo López Luján, Don Forsyth, David Friedel, Jessica Desany Ganong, Ken Garrett, Stacey Goodman, Liz Graham, Kelley Hays-Gilpin, Nikolai Grube, Heather Hurst, Takeshi Inomata, Bryan Just, Justin and Barbara Kerr, Jeff Kowalski, Matthew Looper, Simon Martin, Luis Alberto Martos, Rachel Menyuk, Mary Miller, Juan Antonio Murro, Scott Ortman, Carlos Pallan, David Pendergast, Alex Pezzati, Jorge Pérez de Lara, John Pohl, Robert Preucel, Michelle Rich, Karen Richter, Bill Saturno, Eric Schnittke, Tracy Schuster, George Stuart, Alex Tokovinine, Loa Traxler, Dorothy Washburn, and David Webster. Casey Mesick, my first doctoral student at Brown, now a curator at the Spencer Museum of Art at the University of Kansas, gave expert and welcome assistance in preparing the manuscript. My wife, Nancy, was a treasured companion as always, at the Clark and elsewhere.

A work of scholarship is a slight gift to those we love. There is no compensation for a lifetime of care from a sister, Christina, a brother, Christopher, and the selfless person who helped to raise me, Monica Wennersten Frederick. But I offer a small thing, this book, to show what matters most of all.

# 1

# A World That Matters

*With hot the cold parts strove, and wet with dry and soft with hard*
*And weight with empty void.* —Ovid, *Metamorphoses*

Humans are creatures of change. Born helpless, they grow to adulthood and, by a grim path with certain conclusion, stoop and creak to the end. The transformation is inescapable. But there is another one, too. Along the way, they do and make, and make again. The need to create cannot be disowned. Crafting is in our bones.

Many animals—birds, otters, apes, among others—rework materials, the better to collect insects, open mollusks, or scoop honey.[1] Such actions augment their bodies. They extend capabilities and reduce the chance of self-injury. After all, a stick cannot be stung, and stones, unlike skin, experience no painful bruises. A sharp object slices more than any fingernail or tooth, without the same risk of wear and tear. Creatures also build homes or love nests to find comfort and protection. To call this tool-making is reasonable. A branch can be detached from a tree, and leaves removed to make a more effective probe. Chimpanzees combine sticks to lengthen a tool. Sometimes, they bunch leaves to mop water.

Yet humans do more than that. Their modification of the world goes beyond a tweaking of sticks or stones. Compounding takes place. Tools lead to other tools, through an incremental diversification that involves yet other humans. The activity soon becomes social. People gather. They debate, disagree, learn, confer once more. Then they do and make. In rapid acceleration, one thing leads to another, often with unforeseen results. No denying it, such changes worry us today. A potent capacity to transform implies an equal ability to destroy. For humans, this is an old legacy, going back millions of years. But the advent of anatomically modern

Incensario and "ceiba" bark, Copan, OP 37/5/109 Tunnel 4, Level 8, c. A.D. 650, Honduras humans makes it faster, more complex, less predictable. One claim is that humans "are no longer governed by natural selection," having become "artificial apes."[2] The long record of imploding societies, including the Classic Maya who moor this book, suggests that such ingenuity and experiment are not always successful. Clearly, humans cannot help it. Their need to make things, to arc from matter to worked material to final product, arises from some urge that, in its intensity, seems peculiar to people. They are not so much *Homo sapiens*, a "wise (hu)man," as *Homo faber*, the walking primate that makes things out of matter. This is not all muscle memory or habitual action and repetition. There is systematic thought, a response to prior example, along with a need to ask two basic questions, "what is this thing in front of me, and what, if anything, should I do with it?" The questions are, for humans, non-optional. They must be posed and answered.

This is not a book about Maya technology. That subject, endowed with individual studies of high quality, needs an encyclopedia or two. There are real gaps, to be sure. They need filling soon. No single work deals with Classic Maya pottery in all its variety, although research on stone is on firmer footing.[3] Other materials, such as cloth or wood, have, with few exceptions, long since decayed. Discussing them in detail takes us to their representation, not to physical remains. This volume has a different aim. It focuses on ancient thought about what Maya materials were and how they might be depicted and discussed. The setting is the Yucatan peninsula and environs, a subtropical zone with seasonal rains, blazing sun, and vigorous plant growth. The time is the so-called "Classic period." Covering much of the first millennium A.D., it applies more precisely to the years from A.D. 250 to 850, give or take a half century. This is when textual and visual evidence becomes most informative. Decipherments of ancient Maya writing or "glyphs," a process reaching full maturity in the 1990s, deepen our access to visual and scribal statements of the time. Imagery supplements written language, glyphs, too, sometimes alight in imagery. In ways that baffle, then surprise and instruct, the boundary between text and picture tends to blur. This book draws on such playful and abundant data.

First, a note on chronology. The periods of Maya civilization are, by common agreement, difficult to establish.[4] The early training of some Mayanists led to unfortunate borrowings like "Old Empire" and "New Empire," a clear loan from "Old Kingdom" and "New" in Egyptian scholarship. Then came the "Classic" period, in which the ancient Greeks arrived to visit our nomenclature. The thriving years of, say, Tikal and Palenque were linked implicitly to Perikles, fine Athenian pottery, and other achievements of the Mediterranean world. Of course, the assertion of qualitative superiority is absurd. Much that is distinctive about the Classic Maya appears long before, and various attributes continue in altered form until the present. But the term is probably here to stay. "Classic" is indefensible yet can, at least, be taken as an arbitrary label. It simply defines a time where evidence converges and academic arguments have a better chance of solution.

A refrain in all chapters is that, during the Classic period among others, notions of beauty existed, of that which was good, better, best, the most pleasing and appropriate. These notions fostered thought, fit with orderly principle, and displayed systematic patterns. Social disparity inflected them all.[5] People of high status cared about aesthetics in particular, competing with energy over the expression and arbitration of beauty. They also lived in a setting with its own forms of intensification. The arenas were royal courts, abodes of kings and retainers that, in structural terms, shared a great deal with similar courts in other parts of the world. They functioned as dynamos of disparity. Tokens of rank weighed strongly in everyday life, and the labor of aesthetics grafted on to the unending task of sorting humans into this or that category of relative importance. The closer they were, king against king, noble against noble, the more energetic and impassioned the contest, with some courts leading in aesthetic investment.

Archaeologists and art historians, too, have long thought about technology and material. John Ruskin's notebooks reveal a passion for minute texture and moist, mossy rock or battered wood.[6] From this, no doubt, emerge the observations that enliven his *Stones of Venice*, although Ruskin's intent was often pugnacious, to launch "effectual blows … at this pestilent art of the Renaissance." Art historians have delivered the goods in learned works on the challenges of carving porphyry in ducal Florence—hard stuff that could be shaped only by tempered chisels—and the astonishments of inlaid stone, *pietre dure*, in the palaces of Europe. In Western art, dark mirrors were thought to be demonic, showing a curving, twisting reality to the likes of Dr. Dee, astrologer to Queen Elizabeth I of England. In Christian theology, matter itself might pass through a miraculous process of transubstantiation, in eucharistic wafers, or, controversially at the time, to harbor life in holy relics. From the evidence of crude stone tools come the first comments by archaeologists about deep time and former states of society. These axes, blades, and flakes were seen as vestiges of earlier peoples living very differently from the nineteenth-century Danes, French, or English who noted them. Inspired by anthropology, another body of research, dispersed in many different fields, considered the role of things as they shunted through society or played central roles in human lives. Without irony, one notable book, widely cited, even applied words like "social" and "life" to "things," as though these might converse and interact.

The proposal that humankind results in part from "materiality," a cognitive engagement with matter, complements these strands of thought.[7] In such a view, derived from philosophy and psychology, the mind exists only as part of the world. A potter's hand does not poise before touching the clay, thinking of the next move in slightly nervous and self-conscious acts of production. That is not how the process works. Rather, the mind envelops the clay, and the clay reaches out, in a sense, to engage the mind. The two are in active union, for evolutionary reasons: the brain activates when dealing with materials relevant to its survival and future prosperity. In a separate line of inquiry, equally influential to scholarship, humans are said to need demotion from this interplay, in sweeping adjustment to our people-centric view of the world. By this reckoning, mind and matter operate in elegant symmetry or, at the least, commune in joint relations. People are but one agent of many to "post-human" perspectives.

The literature on "material engagement" and the "post-human" is serious and serious-minded. Yet a candid look finds disunion, too. There are spats, accusations, and terminological overload, with jargon in weary number. At moments, there is a discordant ethereality about the grittiest of things. An impolite query—is an argument about a particular time or place concretely advanced by such proposals?—leads to vague response. No one, it seems, can answer the question with any degree of certainty. There is even a hint of fatigue, expressed in fewer and fewer titles on the subject by the late first decade of the third millennium. The stilling of interest indicates a great deal, a move toward other concerns, perhaps, although the themes, matter and material, have not gone away. The anthropologist Tim Ingold isolates a further problem. Most of this talk and writing "seems to have hardly anything to say about *materials*" (the emphasis is his).[8] In one essay, he exhorts a reader to wet a rock and watch it for a while. That is a helpful exercise. It looks closely at how humans connect with particular kinds of matter in flux. Slowly the rock dries. Its appearance changes dramatically, indeed, in the time it takes to read Ingold's article. The mind knows it is the same rock, but the senses confirm its essential instability.

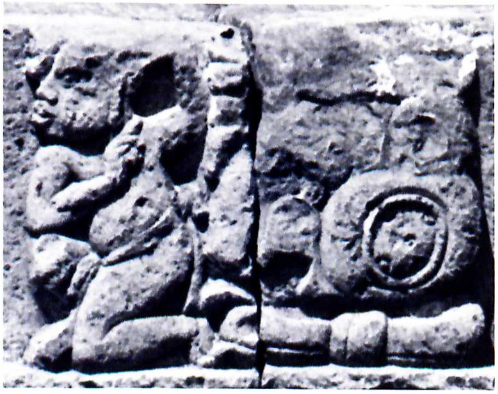
What is less agreeable, there and in much other writing on the subject, is the tone of agitated manifesto. Negation mixes with exhortation. A summons is sent to bring everyone to proper and correct disposition: "think like this but not like that." Or: "clarity will ensue and specific questions answered about the past if we can only think symmetrically about the world." Yet the actual instances in which that happens never quite reach a positive conclusion. A manifesto demands, in its noisy way, a program of action leading to results that can be examined and judged against alternatives. More to the point, if local circumstances and thought need emphasis, then let them be emphasized. They will not always be the same. A rock on Ingold's table would not, one suspects, appear in the same way to the Classic Maya. "Why is the rock there? Where did it come from, what am I supposed to do with it? What is its name and intent? Is it looking back at me, does it speak?" And finally, "is there a spirit within, life, too?" Variety across the globe merits some courteous attention, as does the chance of universals, those features found everywhere. Here is a belief worth endorsing: the proper quarry for those looking at the past is ancient thought, imaginatively reconstructed with as much precision as possible. Evidence may be ragamuffin or doubtfully connected—that depends on scholarly perspective or strength of patterning. But the search is on for themes that amaze and for others we know by heart.

## Minding Matter

"Substance," "matter," and "thing" sit uneasily in Mayan languages. English emphasizes the concreteness and weighty reality of these words. In general, present and past Maya thought appears to look toward innate potential, an implied future of workable matter, one thing made into another thing. Then there is the necessity of understanding these topics in conversation, through the vocal traffic we call "discourse." For example, one language, colonial Yukatek, understands "substance" as a property of semen.[9] Substance is also the effort that goes into building a wall. It dwells in the nourishing quality of food and forms the resistance or strength enabling work to take place and life to live. Without it, a wall will fall down.

A caution, however. There is a real challenge in using dictionaries or other sources from the Colonial period to track these words. The presence of three participants makes this so. First, there is the present-day reader, usually a scholar developing a proposal or argument. Then, some centuries back, is the Yukatek Maya who speaks the words being read today. The final person is a Spaniard, steeped in Catholic philosophy; he took a term in Yukatek and sought, not always with success, for Latin and Spanish equivalents. Slippage and confusion become likely, along with realigned or twisted meaning. Yet, in this case, thinking about matter and material, one nuance filters through. Among the Maya, matter stores energy and latent potential. "Matter" is what is there before the eyes; "material," embodying potential, implies an intent to work such stuff. The first underscores the physical and the palpable, the second beelines to purpose, to what humans and other beings think can be done with it. "Matter" and "material" appear interchangeably in this book. But, in all likelihood, a world without intention, untouched by thought, principle, or pattern—a universe of pure matter only—would seem chaotic and incoherent to the ancient Maya. Something was always about to happen. Matter waited patiently to become, to be made into, something else.

Mayan languages have been around for millennia. That depth makes them different in many ways, but with shared features too. Some of their attributes relate to things.[10] Consider a special class of verb known as "positionals." Encoding for things in space, they resemble adjectives, employing a suffix common to such descriptives. Their main job, however, is verbal. In glyphic texts of the Classic period, people "sit," *chum*, an object or building "acquires form," *pat*—whether of single material or a composite matters little—a stela "stands upright," *wa'*, and a sky "passes," *num*. The positionals imply an eventual resting state, but effort is needed to reach it. More to the point, they show an intense interest in how material achieves its desired potential. A useful object is positioned just so, in just the right place, by human effort and its own predisposition. Mayan nouns reveal another attribute relevant to things. This has to do, if the conceit is not too much, with their sociability. Certain nouns cannot be separated from their possessor. The relation is intimate, hard to estrange. In one Mayan language, Chontal, from the hot lands of Tabasco, Mexico, a "cloud" or an "ant" has no owner. Both will forever be on their way, wandering about, heedless of humans. Clouds stack, dissipate, vapor in and out of existence. Ants clamber about in frantic motion, directed by no evident master. Yet, in contrast, a flower must belong to a plant, a mouth or door (the words are no different in Mayan expression) to a body or building. A mother or brother must have relatives. Tzotzil Maya will only abide a stand-alone "feather," plucked from a bird, if they attach a special suffix. Maya glyphs show much the same, marking body parts, such as a hand, a finger, or a torso, with circles. These identify the places where a hand or torso connects to its body.



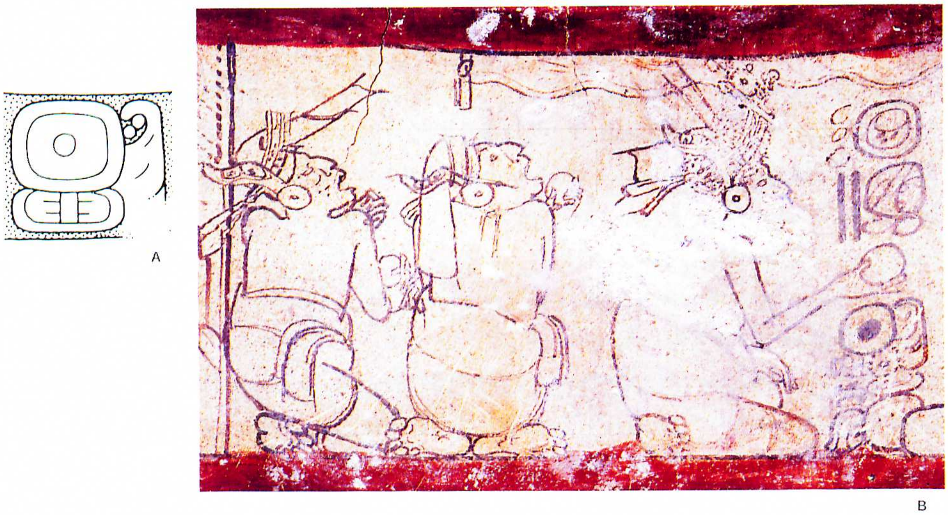
1 Glyphs for *u baah*, "his forehead, body, portrait" or "image"; Copan Hieroglyphic Stairway, Step 41, Block 376, A.D. 755, Honduras (Peabody Museum of Archaeology and Ethnology, Harvard University, 2004.24.295)

The language of the Classic Maya inscriptions shows the same belief in the necessity of associations. There is strong logic here. A "dwelling," an *otoot*, needs an inhabitant. It does not stand alone, although a "structure," *naah*, might. The second may be a shelter, perhaps, but it is not surely a home. Then there are items of body ornament, a *tuup*, "ear jewel," or an aspect of the soul, the *wahy*.[11] A solid case is the *baah*, a word meaning "forehead, body" and even "portrait" or "image" (fig. 1). This is part of the self that can extend, by artistic legerdemain, to its own depiction, as flesh fused with stone. One concept does not noticeably differ from the other. Both need special endings to indicate that their ownership has been waived or set aside. With such features, the Maya present a society of things that are mandatory companions.

Paul Kockelman, a linguist, suggests that this sense of affinity is also part of being like or unlike a person. If, to be a person, one needs a particular object to be whole, then that thing will show growing signs of intimate and "inalienable" relations. It is a marriage without the option of divorce. The reverse holds true as well. A thing may become more like a person. A door and its "owner," a house, can begin to operate like living beings. The parallel involves more than metaphor, for the Maya past and present tend to regard some buildings as living, with a need to eat. The trait also verifies that the property of being a thing often concerns how it relates to others, humans in particular. This relation is what Maya might ask about Ingold's wet rock, slowly drying on his desk. But the Classic Maya need a special particle to signal such ties, a possessive suffix, *-il* (the hyphen indicates where it attaches to a noun). The relation does not allow questioning. No one can ask the house whether it owns a door. A god or effigy, which also take this particle, cannot be queried about ownership of a temple, a *wahyib;* a mute tomb offers no answers about its dead owner. In a sense, the *-il* particle insists on faith, declaring untestable truths about beings that do not talk as others do.

Another opening to Maya thought are "numeral classifiers."[12] These elements of speech occur throughout the world. Some refer to the quality of a noun, its shape or animacy; others indicate quantity. In Mayan languages, numeral classifiers occur as part of a noun phrase, inserted between a number and the thing being enumerated. The trove of classifiers overwhelms in Tzeltal Maya, said by one scholar to have hundreds of them—bilingualism and language loss have since reduced that inventory. By one account, Chontal Maya possesses a mere seventy-eight. In Tzeltal, such classifiers display an extraordinary eye for detail. One classifies objects in "maximal horizontal extension," another the degree of "maximal vertical piling," or the extent of breakage in a bent or cracked thing. There is a large difference if the numbered object is in oblong form, "standing, wedgelike" or whether it is "nonstanding, moundlike." The particles zero in on certain concepts, whether, for example, the wood is still growing or not, as in Chontal. In Tzeltal and other languages, it demands to know, is a numbered being animal or human? Chontal will also pay close attention to material, asking, is it leafy, a wound rope or vine, broken bone or wood, rolled mat or paper?

The classifiers relate to words, some bearing on Maya decipherment. An example in Chontal and Tzeltal is *pet,* a classifier for "round" and "flat" things. This is part of a glyphic term for an island or a province, *pet(en).*[13] When used in verbs,



2 "Round," *pet*, as a verb: A) Xcalumkin Lintel 1:B1, A.D. 700–800, Campeche, Mexico (Peabody Museum of Archaeology and Ethnology, Harvard University, 2004.15.6.10.8); B) codex-style vase with monkey scribes holding round objects, c. A.D. 700, Guatemala or Mexico (Museum of Fine Arts, Boston, 1988.1182)

*pet* alludes to rounded objects, completed things, and the construction of buildings. These are all finished, brought full circle to a *pet*, their rough edges rounded and polished both literally and figuratively (fig. 2). A word, *tz'it*, found in Chontal and other languages to count long slender things is the term used for a torch held by kings at the Late Classic site of Piedras Negras, Guatemala. But the actual classifiers documented in Classic times are limited. The exuberant number in Tzeltal puts them to shame, although it is possible that the glyphic script, a rarified form of communication, overlooked some classifiers in speech. After all, the registers or contents of Maya glyphs are a small subset of full language in Classic society. Still, *te'*, the term for "wood" or "tree," is by far the most common in glyphs. Only a few other classifiers are known, all of great rarity. *Pis* or *kul* occur with calendrical signs at Chichen Itza, Yucatan, and Palenque, Chiapas, respectively. The general use of *te'* as a classifier in the inscriptions is an important clue for linguists. Its service for generic counting indicates one language group only, Ch'olti'an. This cluster of dialects and closely related languages survives solely in Ch'orti', a language spoken by about twelve thousand people on the border between Guatemala and Honduras.

These classifiers touch on wider themes. According to Martin Heidegger, philosopher of existence and its modes of experience, humans tend to prioritize form over matter and substance.[14] Logically, contents need shape to hold them. Then, doing its job, form helps to establish edges and boundaries, affirming that one thing is able to exist apart from another. Difficult texts by Descartes, Spinoza, and many others enter into the properties of matter, its sensible attributes or constant and essential features. In minding matter, the Classic Maya do not resolve larger questions of philosophy or cognition—that is best left to more theoretical scholarship. What they do is to invite a closer view of substance, to the matter within. The very word in English, "matter," winds by long route from Latin "mother," and *māteria*, "tree trunk," a source of growth. This etymology intrigued Marcel Mauss, the pioneering theoretician of cultural categories. For him, in essays that continue to stimulate, Western thought acquired its shape within the framework of history, as channeled by perceptible if evolving ideas. Concepts like the "person" or the "gift," taken for granted in academic debate, are general categories, fruitful for comparison. Yet, modified by need or circumstance, they live fully in their time and place. They follow their own logic but, in detail, enjoy no guarantee of inevitability or universal acceptance. The task of historians and anthropologists is to discern that logic and to explore its broader meaning.

To Mauss, the "despiritualisation of matter was an important step in the history of the category."[15] He dates that event to seventeenth-century Europe. Before: a time of fetishes and living matter, when reason tells us that it cannot be so. Afterward: the modern age and solid distinctions between living and non-living things. As history, this is surely a simplification. Most thoughts have recognizable precursors and descendants. There is no cut-off, no decisive beginning. Of greater import is the suggestion, prompted by Mauss, that Maya materials might contain innate potentials and spirits. By this understanding, material or workable matter gravitate to social existence. At times it cooperated with human will, at times not. The ripe vitality discussed in Chapter 3 involves a detectible agency, a capacity to act and react that extends beyond most writing on "materiality." At the least, as shown by Maya evidence, materials configured ancient thought. Something touchable and visible often led to more abstract categories. Maya dictionaries, for instance, have no clear term for "color." The sources focus instead on the *materials* that link to color or provide a surface for it, along with the dyes or pigments that adjust overall appearance. There is a flicker of light and luster expressed in glyphic adjectives for "becoming green-blue," *yaxjal*, or "becoming red," *chakjal*. Both imply a variable intensity of saturation, affirming that nothing ever stays the same, and that change promises its own special beauty.

For the Classic Maya, the question remains of discerning their categories of matter and material. The ancient origins of our terms, from *māteria*, "tree trunk"—Spanish madera, "wood," descends from the word—may not lie far from Maya evidence. The parallel comes closest in one important category, of matter that grows. The other category, to receive attention later, involves matter from terrestrial deposits, dug out rather than grown. These two categories, one vaulting upward, softer and vegetative, the other hard and dense, waiting below or near the surface, enfold almost all Maya materials. Their distinct properties suggest that the categories are more than convenient: they reflect a clear divide in available sources. Finally, there is the material of the human body, to be shaped and adorned by human skill.

### Matter That Grows

Although little of it survives, a world of wood and vegetal growth surrounded the Classic Maya.[16] They carved such matter into lintels, panels, sculptures, and bowls, lashing it to create scaffolds and thatch-covered houses (fig. 3). Historical linguistics gives us the basic term for "wood," *te'*. It is among the most common of Maya glyphs. It is also the general particle, an earmark of certain language families like Ch'olti'an, by which the Classic inscriptions classified things they wished to count. A monumental study of botany among the Tzotzil Maya of Chiapas, Mexico, erects an umbrella term for "plant." Within it are life forms separated by silhouette and nature of tissue: *ak'* for a "vine," *tz'i'lel,* "plant," smaller plants, and then, as expected, *te'*, a vegetal growth with woody, vertical stems. Curiously, mushrooms and fungal growth group with fauna, not flora.

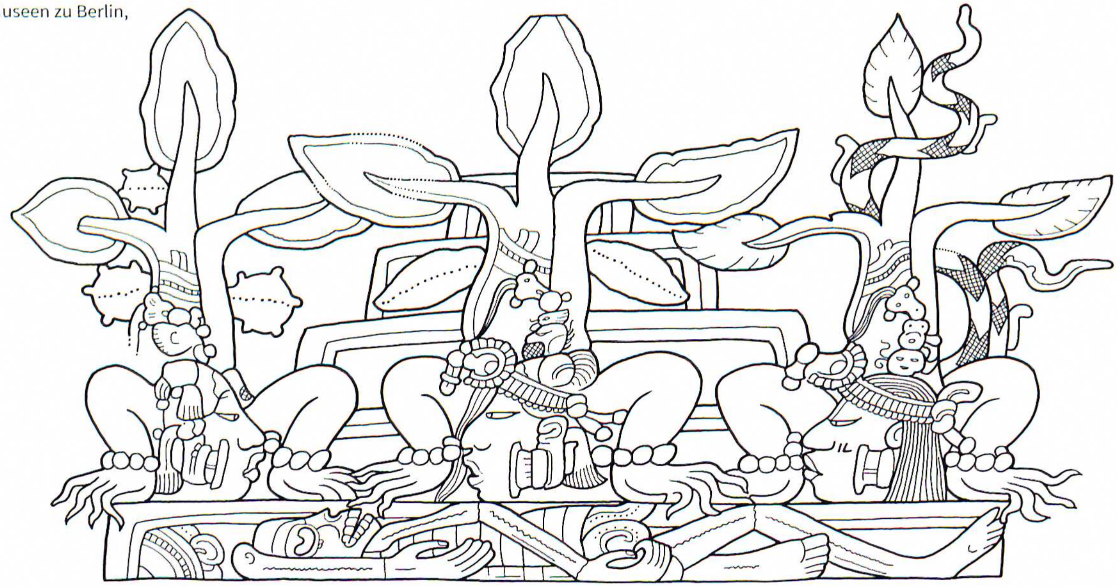
The diversity of Maya attention overwhelms, extending to shape, texture, odor, kind or speed of growth, habitat, and function. There is a special gourd to call souls, plants for shampoo or remedies "hot," "medium," or "cold" to heal the human body. By one estimate, some 90 percent of all items made by the Tzeltal Maya come from plants or their products.[17] The Tzeltal shape boards to support grinding stones, shelves too, along with small seats, pillows, tables, hooks to suspend things, drums, flutes, house frames, thatch, digging sticks too, and staffs of office. For Ch'orti' Maya, close to the language of the Classic texts, material helps to name the things made of it, as in *te'*, "stick." English puts substance first, with words like "wooden toy" or "wooden boat." Not Ch'orti'. It cites *abte'*, "swing-wood" or "bridge," *aras te'*, "play-wood" or "wooden toy," *ch'a'ak te'*, "horizontal-grass-wood," a good old "bed," then *che'nib te'*, "made-thing of wood," and *huht te'*, "puff-wood" or "blowgun." In such words the material is primary, its use secondary.

In Tzotzil, stories pertain to certain kinds of "wood" or *te'*. To label is to conjure a tale. The *tzis uch,* for example, induces gas in the indigestive Opossum, and the mamey sapote, *ja'as,* so filled Coyote's mouth that it allowed Rabbit, a trickster, to flee.[18] A celebrated account from the K'iche' Maya, the *Popol Vuh* of the colonial era, describes the first people, an abortive experiment of wooden life. Little more than effigies, the simulacra of humans, they stumble about, dry, bloodless, oblivious to godly demands for service. They were a big mistake that needed

3 A wooden servant, c. A.D. 700, wood with traces of gesso: h. 33.8 cm, w. 18.2 cm, d. 14.0 cm (13⁵⁄₁₆ × 7³⁄₁₆ × 5½ in.), Guatemala or Mexico (Princeton University Art Museum, y1990-71)

correction. Eventually, "the framed people, the shaped people were undone." Some were pulverized, others turned into monkeys, the not-quite humans of the jungle canopy. The people of maize made better worshipers for gods. Juicy and succulent, they appealed to divine appetites. The botanical substrate of humans—by mythic accounts, failed as trees but successful later as maize—may account for another feature of Tzotzil. The human body shares terms with the parts of plants. *Sjol* is both hair and corn silk, blood the same as red sap. Both life-forms have a similar soul, the *ch'ulel,* and a human child is described, in relation to its father, as *snich, sk'elom,* "his flower, his sprout." And like humans, plants, even useful ones, can

4 Ancestors as plants, A.D. 400–500, ceramic, Guatemala (Ethnologischen Museums, Staatliche Museen zu Berlin, Ident.-Nr. IV Ca 49845)

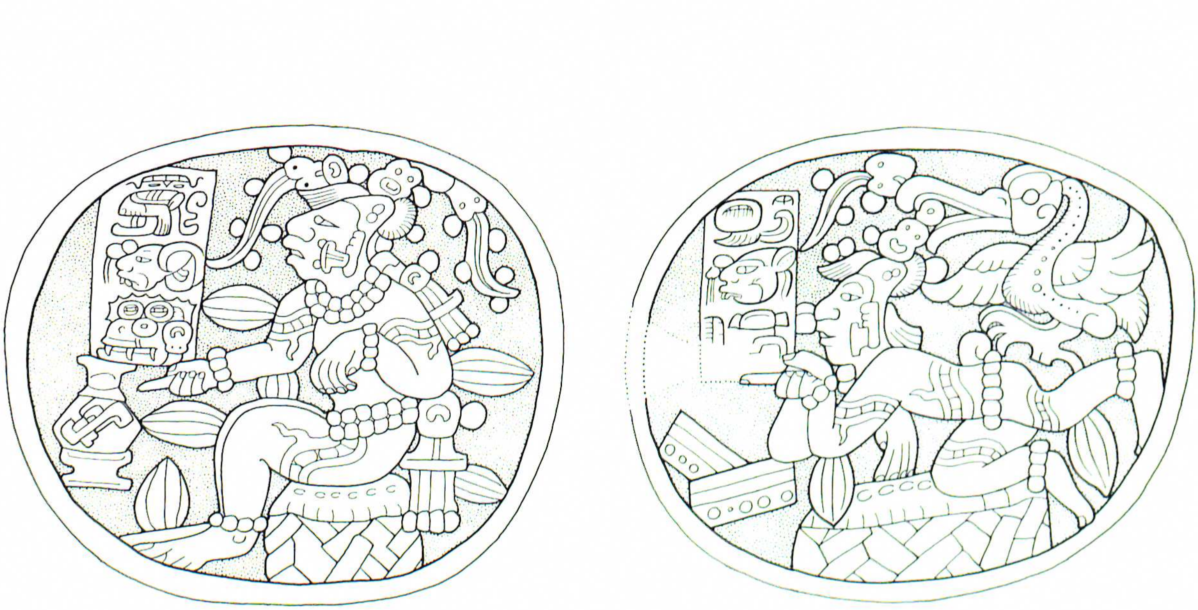


be "rebellious," a bit "lazy." They wait, as with the tobacco plant, for those who "who will treat [them] well."

Not all is sorrow and suffering for the human-plants or plant-humans. In Tzotzil, they possess "one heart," content and submissive. Sage, too: like priests, they "picture" the stars to facilitate their own growth. In select images, the Classic Maya also work hard to fuse royal ancestors with fruiting trees (fig. 4). The limestone sarcophagus of Pakal at Palenque, Mexico, shows how. In dancing movement, kingly predecessors emerge from gashes in the earth. Behind them, plants rise with somewhat sparse leaves and branches. The schematic treatment gives readers what they need to know, an identifying leaf or fruit but no more. Presumably, an actual panoply of tropical growth, exuberant and entwined, would clutter the scene and impair its legibility. All the plants bear fruit, including cacao pods, the food of royalty and nobility. But, unlike ordinary vegetation, some sprout jewels. A few earlier stories were probably more disagreeable, as in an image of the acacia tree. A mythic scene from the early years of the Late Classic period observes its distinctive thorns.[19] Symbiotic home of fire ants, the acacia scourges those foolish enough to touch it. Doubtless the Maya noticed this, as have countless archaeologists agonized by such bites.

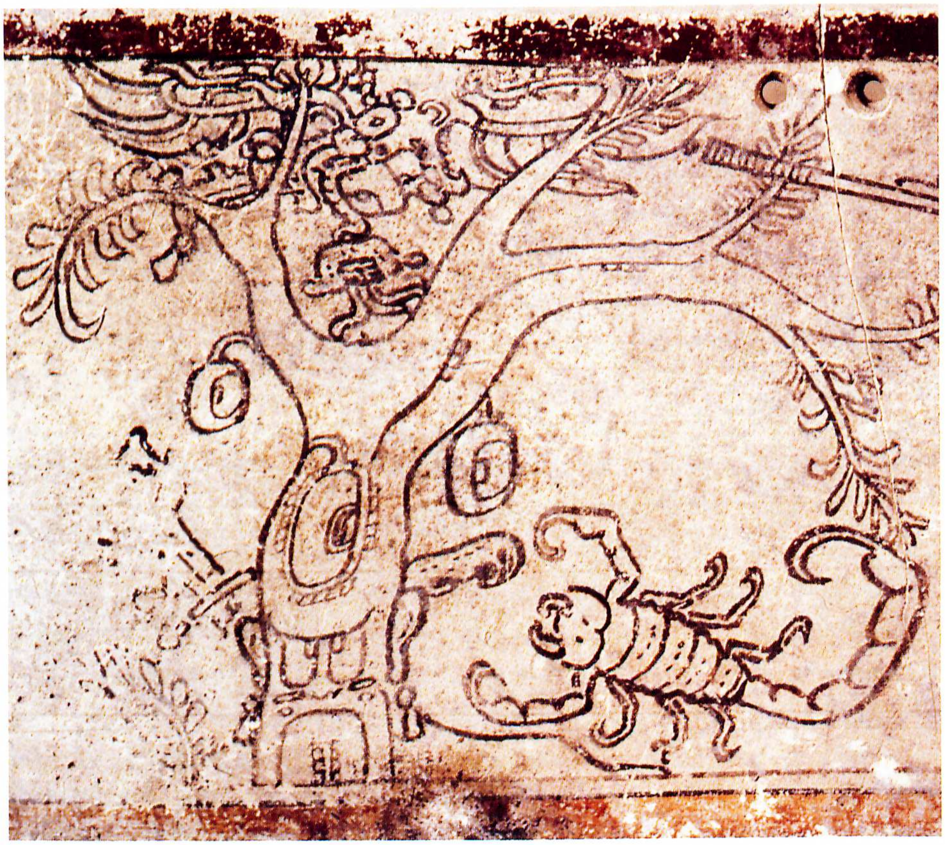
Clearly, these are special plants. Unique as mythic models, they imply, in evocative paradox, an everyday class of vegetation. For the ancient Maya, nothing is ever ordinary; the extraordinary sits cheek by jowl with the everyday.[20] An ideal form based on a mythic prototype, a first plant, a first tree, would intersect with tangible reality. As productive plants, reborn ancestors give living shape to people who have passed away. An orchard would attain a particular status, too, as a gift from the ancestors and an emblem of their presence. But think of an unsettling corollary. Woodworking of any sort would be a violent and wounding endeavor if spirits lay within. Obsidian or flint slices human skin and tissue, the teeth of animals tear at flesh. These same materials were used to shape wood. Chisels came from the teeth of peccaries, and flint adzes or obsidian blades hacked and cut into hardwood. Through acts of crafting, such tools would do more than leave a desired form. They bit, slashed, gouged, and tore, suggesting a need for a respectful, ritually hedged approach to raw material. Matter with spirit would require wary handling.

The theme of living plants and mythic models helps to explain a carved bowl in the collection of Dumbarton Oaks (fig. 5). The protagonist, depicted twice, appears as a jeweled cacao tree in human form.[21] The bowl itself is for drinking cacao, its surface similar to gourds used today for that purpose. In this tree-man, one category of plant merges with another. Just as cacao erupts with pods along its trunk, the Maize God, Ixi'm, projects the same fruit from his body. The combination of maize and cacao is botanically impossible, of course. No hybrid of the two can exist. Yet the fusion makes sense if the aim is to blend two supernatural plants, one a humdrum if vital food, the other an aristocratic delight. As the epigrapher Simon Martin proposes, these two are "world trees," a category of growth



**5** Dumbarton Oaks bowl, A.D. 400–500, limestone, Guatemala or Mexico (Dumbarton Oaks Research Library and Collection, Washington, D.C., PC.B.208)

**6** Mythic ceiba, c. A.D. 700, ceramic vase, Guatemala or Mexico (Museum of Fine Arts, Boston, 1988.1173)



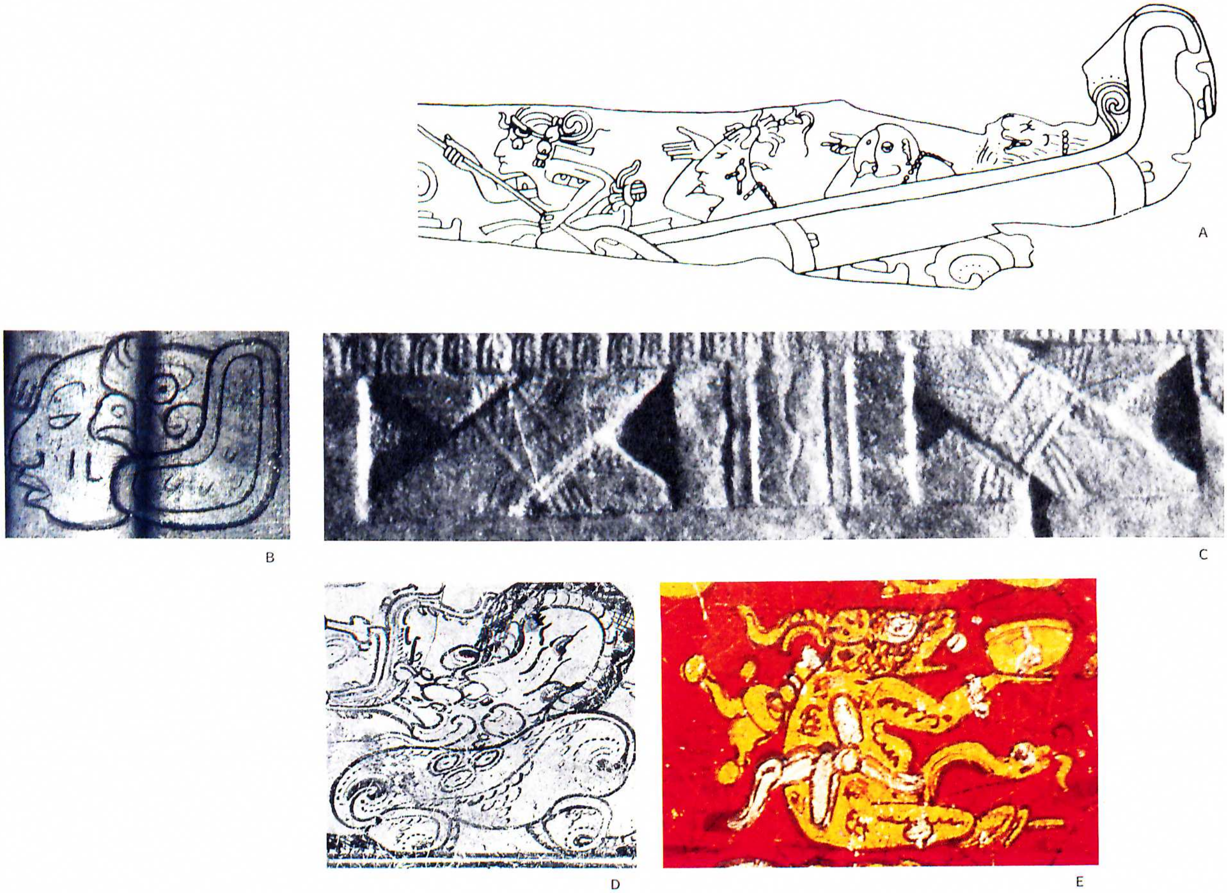
pivotal to Mesoamerican belief. Vaulting to heaven, higher by far than real forest giants, such mythic plants define the center and four quadrants of the cosmos. To emphasize their vegetal essence, a maize plant that embodies cacao is said, in glyphs, to be a *te'*.

The bowl has other parallels in Classic Maya imagery. A ceramic vessel now in Berlin fuses cacao plants with variants of the Maize God.[22] Even deities need companions: to either side are what may be corn maidens. All flex their fingers, which undulate like growing roots. Their bodies whip up to become tree trunks, fixed in place yet somehow agile and acrobatic. Much here is enigmatic, but Maya lords of the Classic period were sometimes labeled with terms that include "tree" or "wood," including *yajawte'*, "the tree's lord." A term for subordinates, the phrase remains difficult to parse. But it may refer to some metaphor or, perhaps, to ownership of orchards, including those of a mythic sort, or to cacao plantations yielding great wealth. Captives, too, were described as *ete'*, a kind of "wood" or "tree" of their captors.

Trees are thus like humans and gods. Strangely, however, Classic imagery seldom highlights serviceable wood. Certain texts refer to *ch'uhte'*, "god-tree," or *k'ante'*, "yellow tree," probably "Spanish cedar" and the "Madre Cacao," respectively.[23] The delicious guava, *patah* in the glyphs, may occur in a royal name at Bonampak, Mexico. But, other than trees with food, there are few hardwoods in imagery. Late paintings from Chichen Itza, Mexico, dating after the Classic period, display several kinds of tree, all with the schematic quality of earlier examples. The Temple of the Jaguars presents a veritable forest of red-barked growth. Each leaf is ticked out with care. Not far away, the Temple of the Warriors offers a less orderly array of isolated trees. Like paired kidney beans, their leaves clump in two nodes. A species with light bark has smaller leaves, the other, with dark trunk, bears foliage of greater size. None of the growths can be identified with precision.

An exception is the ceiba or *yaxte'*, "first tree." In mythic form, it thrusts up from its base, a head with jaguar ear and shiny, luminous eyes (fig. 6). It happens also to drink blood, swirls of which flood the mouth. Much like cacao, "fruits" of polished stone spring from its trunk, a feature to be studied again in Chapter 3.[24] The appetite for blood is what sticks out most. Scribes emphasize such consumption when combining the sign with others—a blood-gorged mouth is all that remains. There is another, yet more crucial feature. The head becomes one of the main glyphs for *te'* in general. It labels any kind of wood or tree, not just the ceiba. The main model for all such growth is a cosmic one. Perhaps it was truly the first tree, an Adam of its kind.

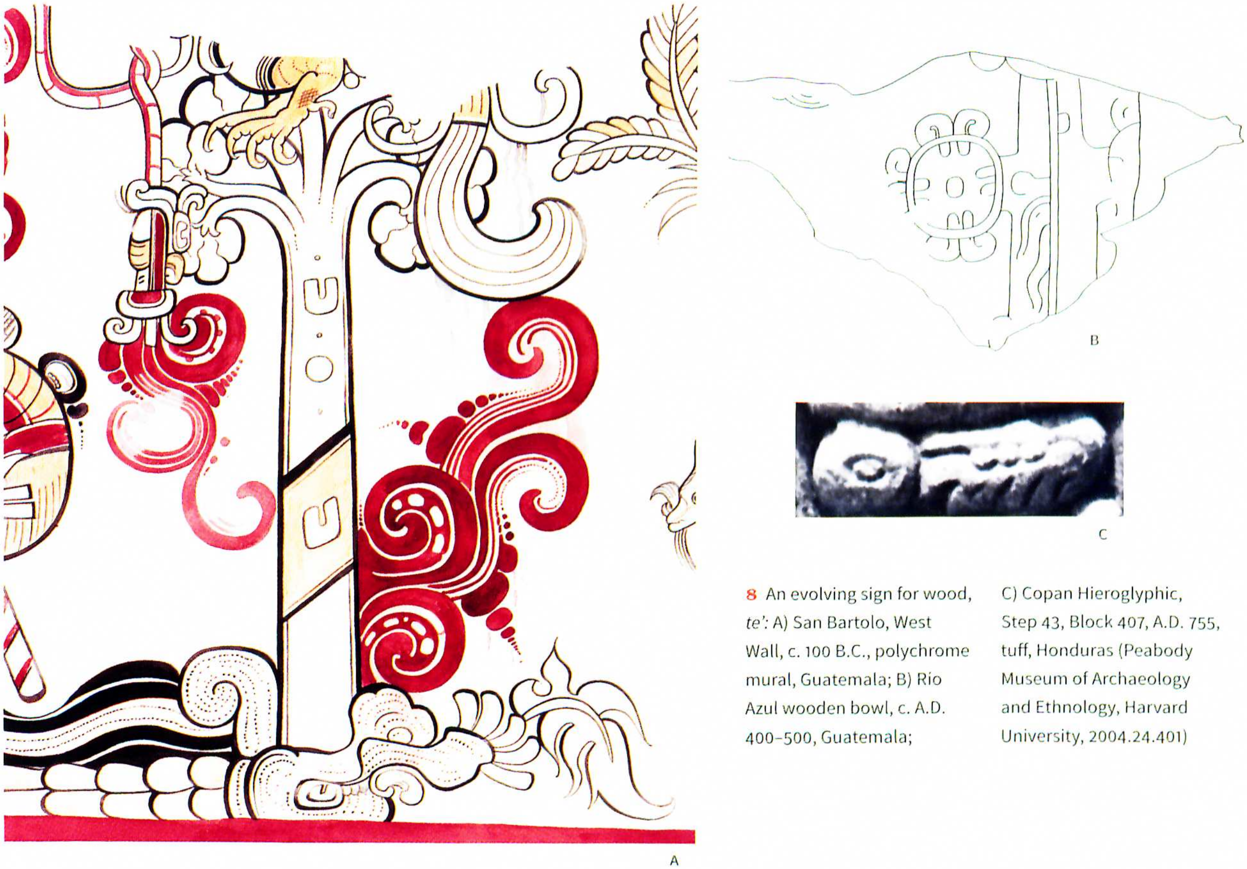
Ceiba is a plant with practical use. Hollowed out, a ceiba trunk transforms into a dugout canoe of some size (fig. 7).[25] In one glyphic text, an evident paddle is labeled with the glyph for *te'*. Heavy paddles make little sense. If dropped, they sink to the bottom. Perhaps, in this case, the object was of buoyant ceiba wood, known to have served that purpose. This role may also account for the "wood" or "tree" markings on canoes, although there is no confirmation that these were of that material. Images of bowls simply show that some were of wood, not of any particular kind. Archaeology does prove that cottony fluff from ceiba was used as pillow or bed stuffing, and a few paintings appear to show its flower. Cotton, too, occurs as a glyph. In certain images, it is a material spun by mythic crones or appears as the substance of a bird's nest. Notably, the glyph, which operates as a syllable **no**, stripped of meaning, arises from a term, *nok'*, "cloth," for the main product of cotton. There is one other identifiable wood. A few scaffolds, lashed for strength but unlikely to last long, are marked as *taj*, "pine." (We know this because



7 Wood, cotton, pine, and animated agave: A) wooden canoe, Tikal Burial 116, c. A.D. 734, incised bone, Guatemala (University of Pennsylvania Museum, Philadelphia, MT38D); B) cottony nest of Quetzal bird, c. A.D. 500, incised jade, Costa Rica?; C) *taj* or pine cross-bars on throne, Cancuen Stela 1, east side, c. 780, limestone, Guatemala (Peabody Museum of Archaeology and Ethnology, Harvard University, 2004.24.3377.1); D) animated agave, c. 750, ceramic vase, Guatemala or Mexico; E) mythic toad holding wooden bowl

the mark does double duty as a syllable, **ta**; the Classic Maya created syllables from longer words by slicing off their final sound, usually an *h*, *y*, or a glottal stop, an interruption of airflow in the throat.) Light, easy to cut, pine had, in human hands, no need for permanence. The fragrant and resinous *taj* was also bundled into torches, a frequent element on painted vessels. Then there is the spikey maguey, *Agave americana*, whose sweet liquid could be made into an alcoholic drink, *chih*, close to Mexican pulque, a mild inebriant. Like *te'*, it, too, has a mythic variant, a large-eyed deity like the rain god, but with feathery spikes in place of hair.

The Maya sign for wood, *te'*, shifts over time (fig. 8). The earliest, from the Preclassic period, circa 100 B.C., shows it with a diagonal band, an attribute also placed on gourds, another fibrous, vegetal material.[26] The band may convey a sense of hardness, a bright polish or the sheen of smooth bark. By the Early Classic period, at about A.D. 400, the band occurs in wavy lines, and small tendrils extend from it like fibers over the body of the plant. This version gives way gradually to one that begins in glyphic texts of the Early Classic and then, with modification and

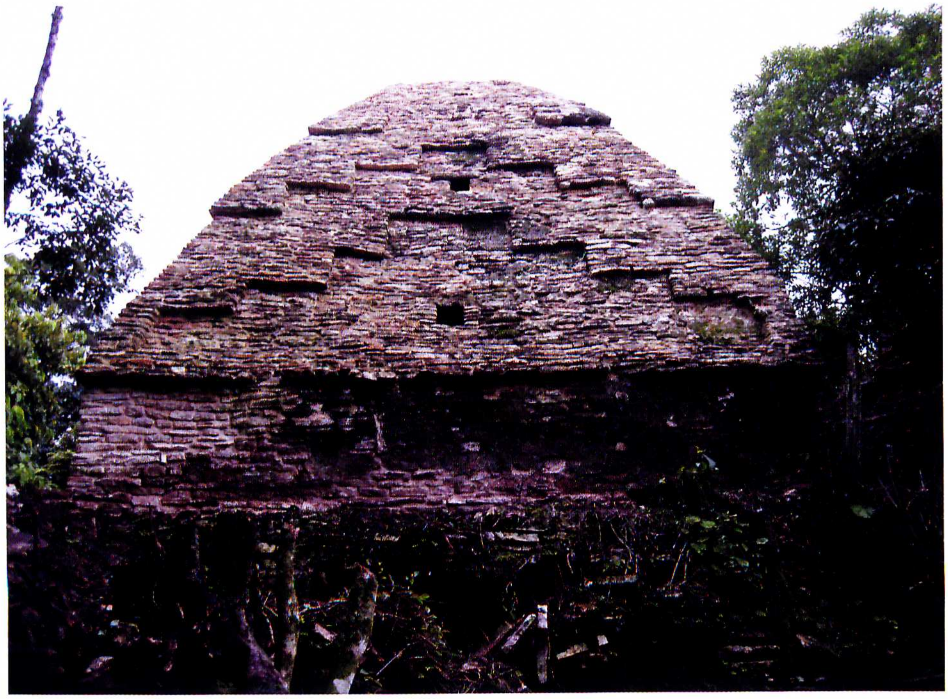


8 An evolving sign for wood, *te'*: A) San Bartolo, West Wall, c. 100 B.C., polychrome mural, Guatemala; B) Rio Azul wooden bowl, c. A.D. 400–500, Guatemala; C) Copan Hieroglyphic, Step 43, Block 407, A.D. 755, tuff, Honduras (Peabody Museum of Archaeology and Ethnology, Harvard University, 2004.24.401)

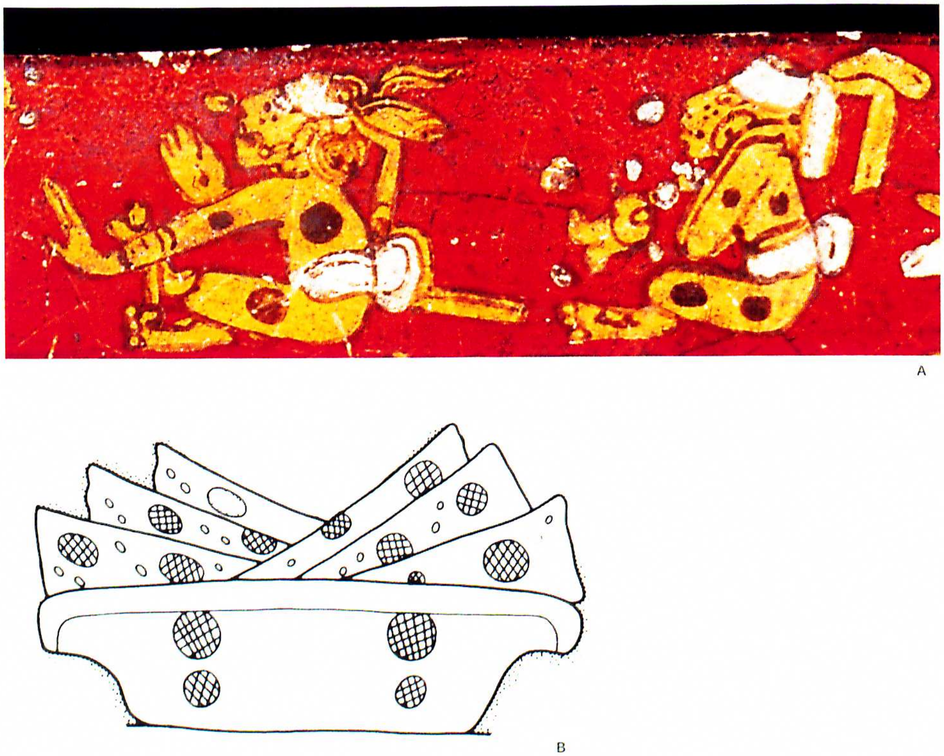
compression, achieves dominance in the Late Classic. The band remains, but it is thin, marked to one side only with small nubbins. Sometimes a small sign for growth perches above. By the middle of the Classic period, the scribes moved to a shape that has a circle-within-a-circle, possibly a cross-section through the plant. To the side, a longer element contains the usual lines with nubbins. This last becomes the key identifier of all things wooden. It garnishes images of canoes, paddles, bowls, and, in one violent scene from the end of the Classic period, sticks with the marking fly through the air. Warriors clash, some fall. The "wood" signs may correspond to a fatal rain of darts or throwing sticks.

The Maya do show other vegetal materials.[27] Captives at Late Classic Bonampak writhe unhappily in a field of red grass, perhaps a savannah. Many such materials, wicker too, went into the baskets to be described in the next chapter. There is clear and close attention to the twisting rope and bands. Refined examples came closest to human skin, as in a headband for carrying loads. Coarser ones, absorbent, stabilizing, made their way into supports for bowls or jars. Sturdy cross-ties of rope

**9** "Thatch" on Structure 13, Plan de Ayutla, A.D. 700–800?, Chiapas, Mexico



**10** Objects of paper: A) paper headdresses on mythic twins, c. A.D. 600, ceramic vessel, Guatemala?; B) Yaxchilan Lintel 15, c. A.D. 755?, limestone, Chiapas, Mexico (Peabody Museum of Archaeology and Ethnology, Harvard University, 2004.15.6.5.14)

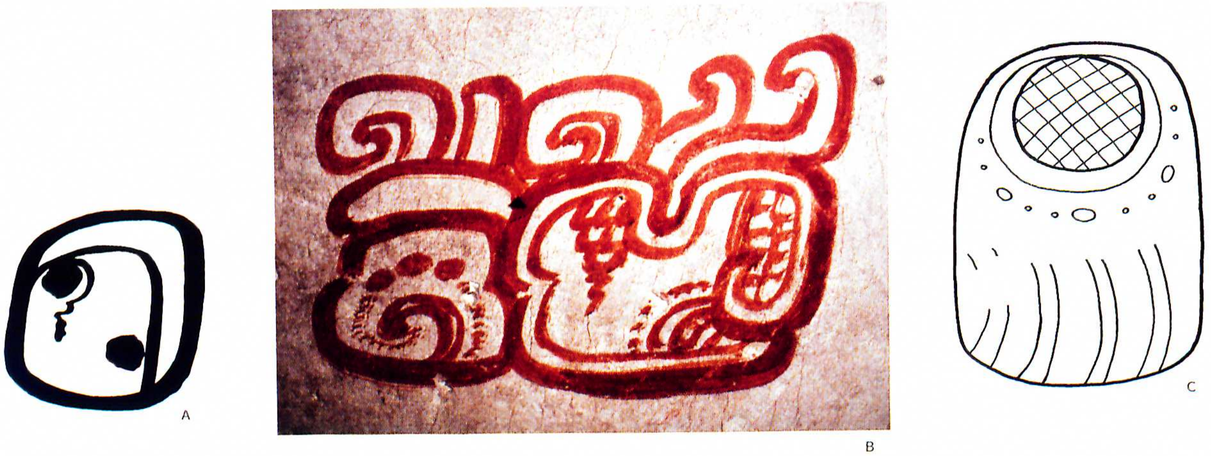


bind the poles of scaffolds. The thatch from dried palm appears in few images. Presumably, it was too humble a material for elites who lived in houses with masonry roofs, although there are attempts, as at Machaquila, Guatemala, to reproduce in stone its disheveled tufting, in disarray from wind and rain. Hints at flamboyant and geometric painting of thatch roofs come from Plan de Ayutla, Mexico (fig. 9).

No such aesthetic ambition occurs in the glyphs that show thatching, usually as part of a glyph for "dwelling," *otoot*. But they do stress the twisting and overlapping of grass and palm that goes into a Maya roof of the Classic period. The epigrapher David Stuart has identified a term for shaping such buildings, *pat*, rendered as a glyph that refers in part to thatching.[28] The glyph describes the building of stately masonry palaces and temples yet refers to more modest originals of perishable material. This material carries a trace, a grounding metaphor, to be used for permanent structures. Ultimately, the term may have some cross-craft inspiration. In surviving languages, *pat* identifies not so much stone-working as the plastic manipulation of moist clay, for pots and other items. Even *kab*, "wax," could be so modeled.

A key product of trees is "paper," *hu'n* in the glyphs (fig. 10). The same term applies to Classic Maya "books," the material giving name to its product. The processing of paper is another muscular act. In raw form, it came from the cortex of the fig tree, to be pounded in cross-layers, sized with a slurry, and later polished with lime dust, rather like the surface of a plaster wall.[29] The white background gives it luminosity. A similar appearance, perhaps influenced by book production, finds its way into painted Maya ceramics of the Classic period. Like books, these too have light backgrounds that impart clarity to surface painting. But most Maya paper was not intended to last. Seemingly a solid, it evaporated with ease when subjected to flame. Its surfaces could also absorb and highlight blood, as seen in bowls at Yaxchilan, Mexico, and such transformation by fire created a fragrant food for celestial beings. Flimsy to us, paper signaled high rank for the Classic Maya as the headband of lords.

Other materials that grew include those of animal or avian origin. These ranged from skin or pelts, the feathers worn by lords, deer antler, the feline claws made into pendants, to the seashells, such as the *huub* or conch, collected in waters far distant from most Maya. Shells are the noisiest. To Classic thinking, they transmute the human voice, puffed through conch whorls, into a new song. A drilled hole or two sufficed to modulate the sound.[30] What needs equal emphasis is the material within, the bone that strengthens and supports animal bodies. Identified by glyphs as *baak*, the Maya sometimes specified exact origin. One bone belonged to a *bahlam*, "jaguar." As with wood, the trace of the original, in this case a ferocious feline spirit,

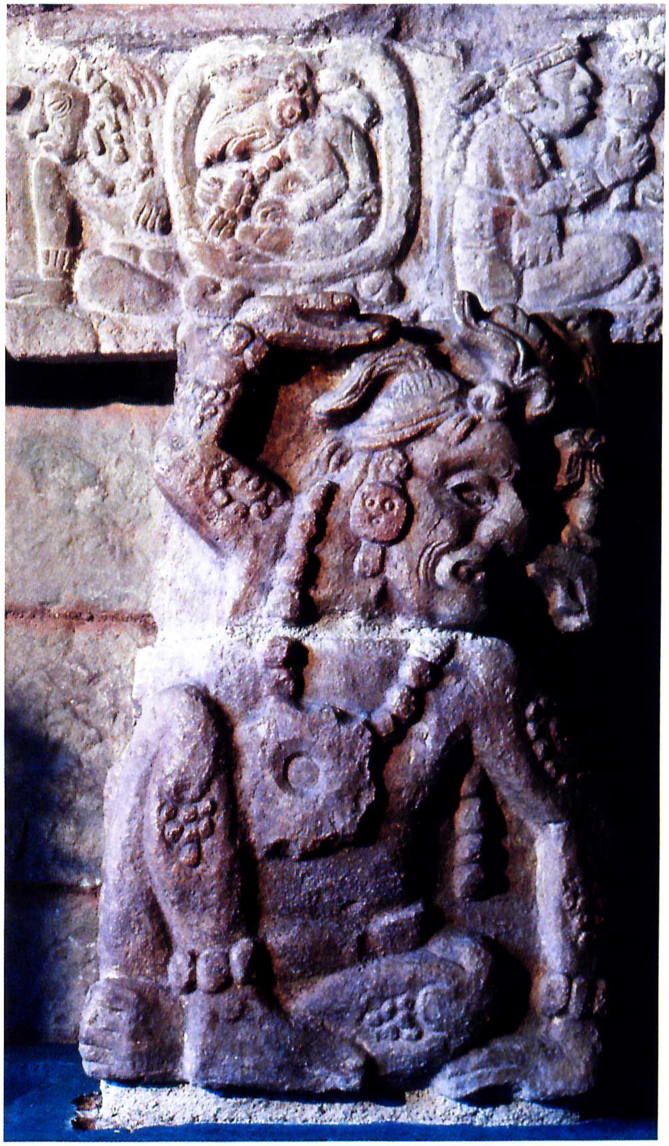


**11** Earth, hill, and water: A) earth sign, Naj Tunich, Drawing 82:D1, A.D. 767?, limestone cave, Guatemala; B) Río Azul Tomb 25, North Wall, c. A.D. 500, plaster wall, Guatemala; C) Palenque Temple XVIII tablet: A6, A.D. 699, limestone, Chiapas, Mexico

may have endured in skeletal residue. Perhaps control of such bone contributed in some way to hunting magic. A fleshed body, it seems, was not necessarily a dead one. In some images from the Late Classic period, skeletons prance about, fetid with putrefaction. For a few dancing felines, blood-flecked bone remains visible near hacked flesh. Not surprisingly, given their shared hardness, the carapaces of centipedes look like bones, an inside pulled out to naked gaze.

### Mined Matter

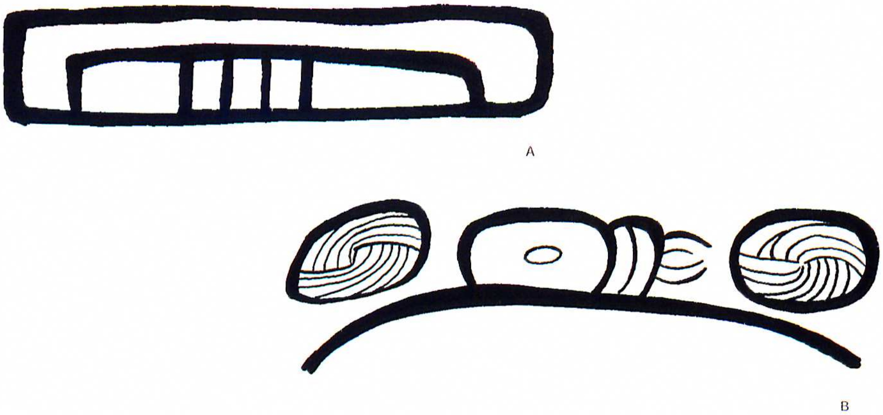
The Classic Maya also lived in a world of stone, the second main category of matter and material. A vigorous rainfall exposes bedrock close to the surface, the rocky outcrops and caves called *ch'e'n*, along with rim plateaus and hills or *witz*.[31] The clay and earth itself above such stone must have had, to Maya thinking, some relation to it: the glyph for "earth," *kab*, has elements in common with "stone," *tuun*, but add to it a sign for musk or excrement, a fertile night soil (fig. 11). From *kab* comes the clay that, leavened and tempered, goes into ceramics. The most transformative of Maya materials, clay alters from moist plasticity to solidity. The result is *lak*, a fired clay, mentioned in glyphs to label bowls but also clay plaques and incense burners. What had exuded strong scent in its earthy clay became the home of fragrant incense: such contrasts must have been deliberate. For its part, stone is one of the most common Maya signs, a basic term for describing stelae, altars, indeed, anything carved of blocky, subtractive material. By adding a whorl to its outline, an abrupt dip and kink, the Maya devised a similar glyph for *witz*, "hill," a key decipherment by David Stuart. Much current understanding of ancient Maya geography rests on that insight. It highlights the stony essence of Classic topography,



**12** Atlantean being of stone, Sepulturas bench, Str. 9N-82, center room, A.D. 774?, tuff, Copan, Honduras

alongside terms for "water," *ha'*. The Maya built their world on dry and defensible places near reliable streams, lakes, or reservoirs.

In no case, however, does a "stone," *tuun*, appear as a composite. In glyphs, a mosaic or collection of blocks in a wall is never named as such. A *tuun* is always a single, definable carving, a material that has been extracted and reshaped. Humans have intervened to make it, yet sometimes they join personally in its strong and resistant nature. A number of atlantean beings, straining to support an earthly surface, have surface markings that reveal their stony bodies (fig. 12). They have the

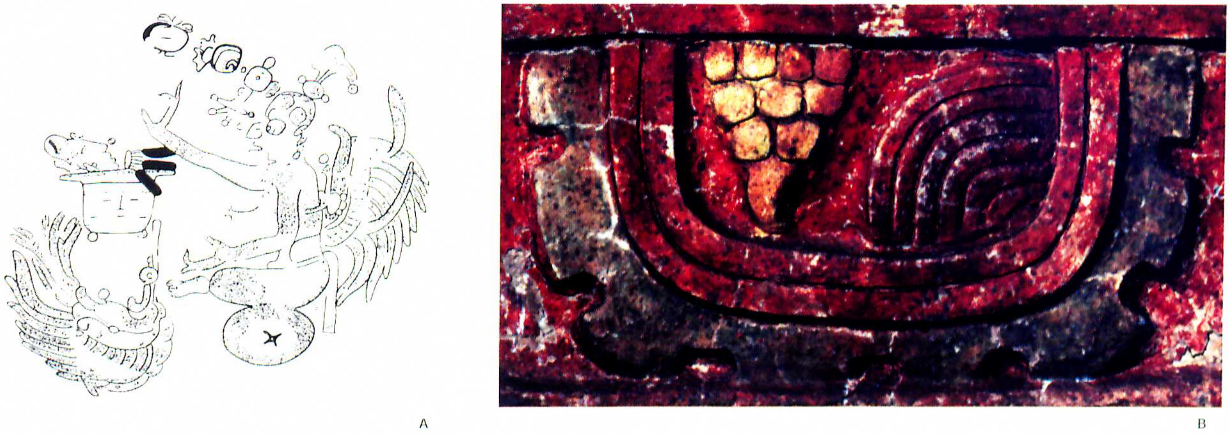


**13** Numbers of polished stone and balled hair or grass: A) Caracol Stela 6:B14, A.D. 603, limestone, Belize; B) Late Classic bowl, A.D. 751, ceramic, Campeche or Yucatan, Mexico (National Museum of the American Indian, 24 / 8346)

same cluster of beaded elements, the arc to one side showing a hard or smoothed nature. Not a few seem aged, and the phrase "old as the hills" may have found some sympathy with Maya ears.[32] The paradox is noteworthy: capable of movement and heavy exertion, the atlanteans labor with the most immobile and implastic of flesh. No muscle or tissue here, only, to the core, a firm and rigid substance.

As to *tuun*, the Classic Maya usually carved limestone, ubiquitous in the karstic landscape of Yucatan and its neighboring areas. But they also applied the word to the compact volcanic tuff of Copan, Honduras, or the sandstone of Altar de Sacrificios, Guatemala. It did not matter: all were labeled *tuun*, "stone." The exceptions were the disobliging, friable slates quarried in west-central Belize. Appearing at Caracol, Belize, Calakmul, Mexico, and Sacul, Guatemala, they seem not to have been labeled by material, perhaps because of their anomaly. Yet they had obvious value. A slate sculpture, Calakmul Stela 9, dating to A.D. 662, was dragged close to a hundred miles from its probable source. Stone markings are revealing in another respect. Many number glyphs, shown as rounded pellets or thin rectangles, are embellished with symbols for polished stone (fig. 13). Although it is impossible to prove, Maya arithmetic may have begun in a tactile way, by using actual objects for its calculations—a pebble added or taken away, the same for rectangular sticks or stones. Conceivably, these counting devices preceded Maya writing or existed alongside it. A text from the area between Yucatan and Campeche in Mexico raises the chance of softer inspiration. Grass or strands of hair, wrapped into tight balls, replaces the more usual pellets.

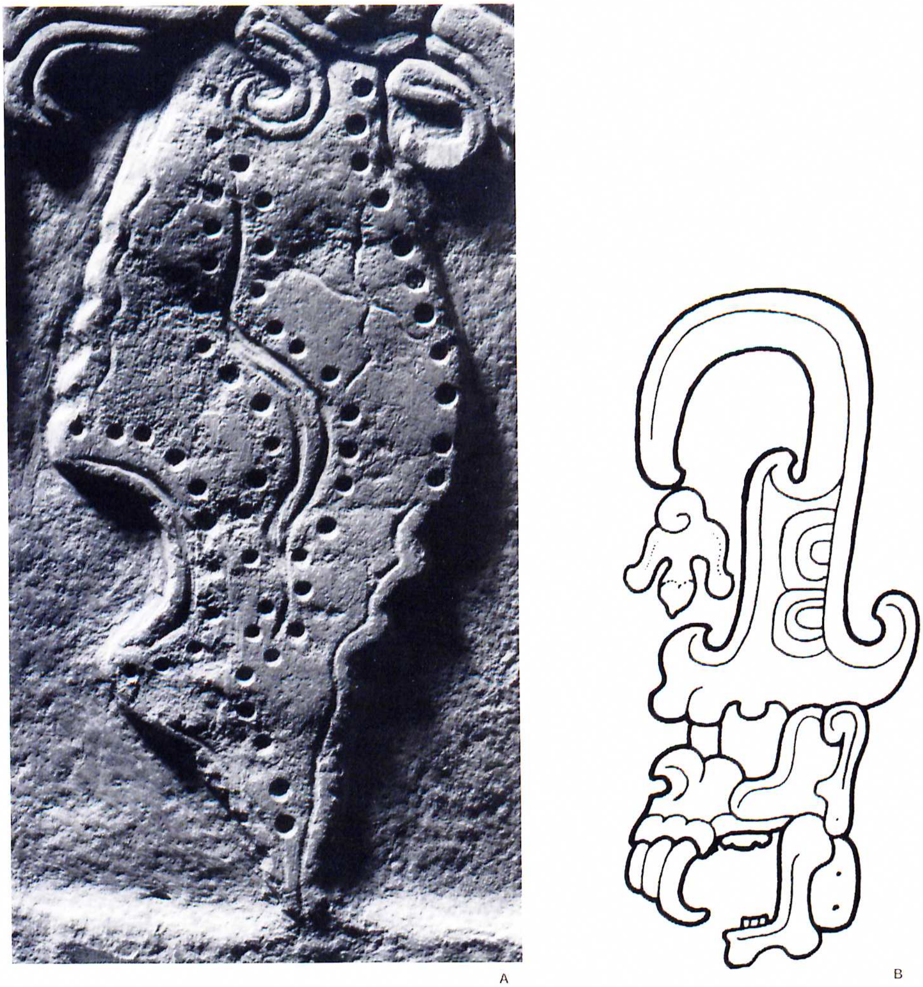
One stone differs from all others, the *yaxtuun*, "green/blue stone" or precious jade. A rare glyphic reference appears in a painted scene from a Late Classic bowl. The glyphs caption a container crammed with jewels. To one side, a seated god,



**14** Glyphs for jade: A) *ma yaxtuun,* "no jade," plate from Tikal Burial 195, c. A.D. 593, ceramic plate, Guatemala (University of Pennsylvania Museum, Philadelphia); B) *yaxtuun* in stucco band, Copan Margarita Structure, c. A.D. 437, painted stucco, Honduras (Peabody Museum of Archaeology and Ethnology, Harvard University)

high in the Maya pantheon, waves his arm. Evidently, as David Stuart notes, the deity is disgruntled. He grumbles, *ma yaxtuun,* "[there is] no jade," perhaps because his treasure has been taken away (fig. 14).[33] In a glimpse of paradise, the facade of the Early Classic Margarita structure at Copan places the emblematic name of the dead king in a cosmic frame. Above passes the sky; below is a band of "stone" signs, *tuun,* nestled within a glyph for *yax,* "first." Plainly, this is an earth not of clay and regular stone but of lustrous jade, *yaxtuun.* Few Maya, other than those near the source in the Motagua River valley of Guatemala, would have seen jade at its place of emergence. And few of those people mined the source directly, preferring to work boulders washed out of higher veins. Strangely, references to jade are highly unusual in the hieroglyphs: a coveted material, the adornment of royalty, yet not much discussed—could there have been some prohibition on mentioning it, some glyphic taboo? A second possible word for jade in the texts, *ikaatz,* may allude more generally to tribute, some of which included this rare material. Yet the ultimate paradox of jade is its link to the most ephemeral of beings in Classic imagery, the Maize God. Scenes on Late Classic pottery place repeated emphasis on his dressing and the later stripping of his jade jewelry.

The other two stones of the Classic Maya, more common by far than jade, are flint and obsidian (fig. 15). These were clearly paired by the Classic Maya, as at Copan. A foreign god is said to have one "visage," possibly *saat* or *wuut* of "obsidian," *taaj,* then another of "flint," *took'.* Whether *taaj* was a more inclusive category, not just restricted to this dark volcanic glass, is suggested by a text on a calcite bowl from El Abra, Honduras.[34] There, in an inscription with difficult content, still hard to read, it includes the term for obsidian in a possible reference to the bowl itself. Perhaps the term applied to other materials linked conceptually

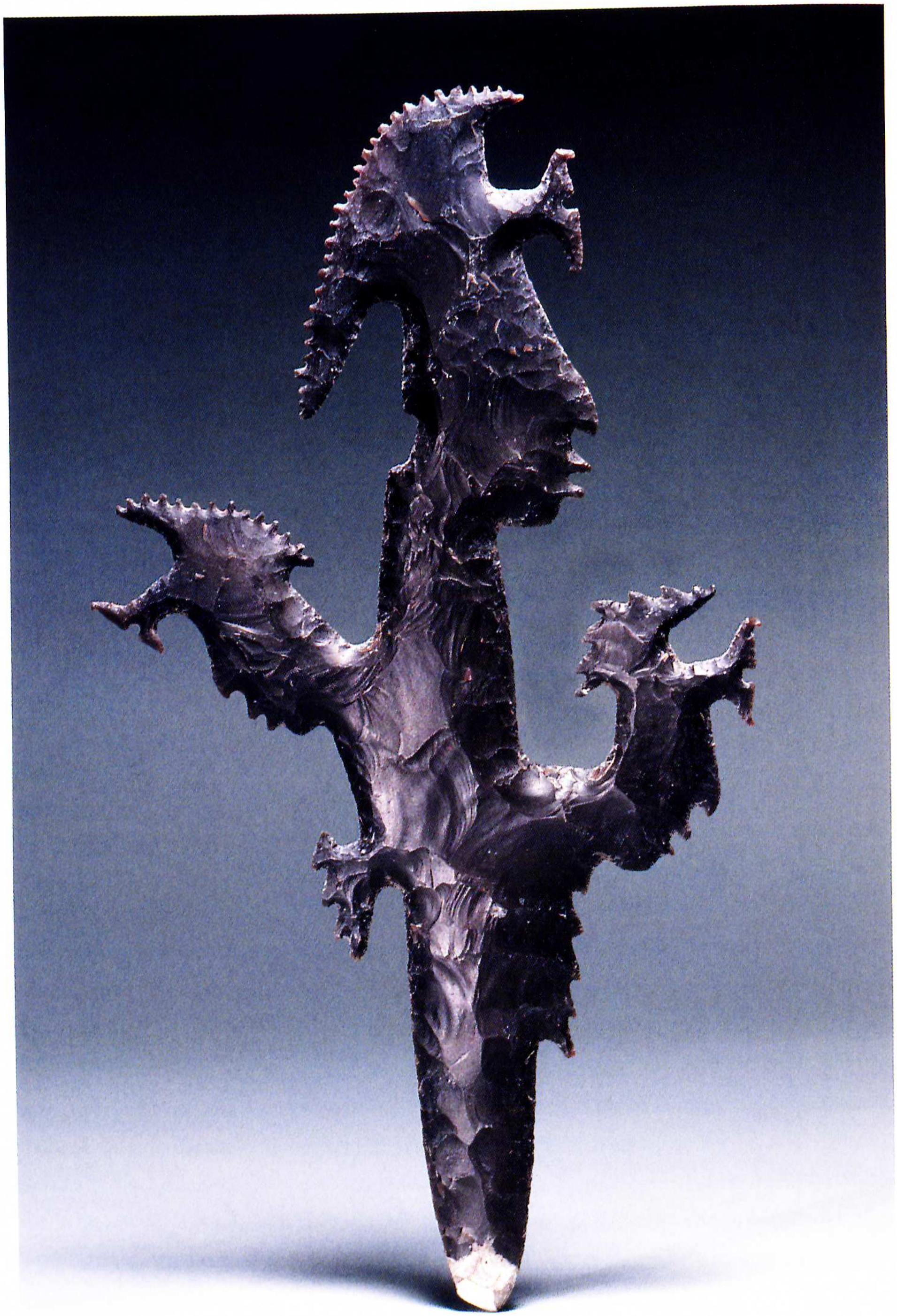


15 Flint and obsidian: A) Panel, Usumacinta region, present location unknown, A.D. 758?, limestone, Mexico?; B) Piedras Negras Stela 8, A.D. 724, limestone, Guatemala (Peabody Museum of Archaeology and Ethnology, Harvard University, 2004.15.6.19.23)

to siliceous flint. In some images, both flint and obsidian substances vaunt their bony nature, displaying skulls with teeth and full jaws, perhaps the better to bite. Consistent with its black surface, obsidian can also sprout a nose marked with signs for "darkness." Living if skeletal, their eyes gleam with signs of perception. Both, too, have, in more elaborate versions, serrated and figural outlines. These are likely to correspond to artifacts known as "eccentrics," often interred in caches, and so-named for their intense impracticality and complex outlines: such blades would have little use in everyday life. Like all Maya materials, the eccentrics require skill to make, often of multiple blows by indirect percussion. The violence in their manufacture accords well with their own ability, when made into blades or knives, to slice, slash, and kill. As Karl Taube notes, flint in particular is a weapon of war, related to the feathers of martial eagles. A glyph for "flint" at Tonina, Mexico, neatly substitutes flint with the head of an eagle. The epigrapher Marc Zender stresses, too, the violent sound and action inherent in flint, a substance given to loud, almost clanging blows. It is a substance of mayhem, of intended injury and vengeance.

The materials draw on a second similarity (fig. 16). The effigy eccentrics of Copan, Honduras, and parts of Belize, present the outlines of dancing lords or the deity known as God K. Often, the effigies tie to both beings, and the more human guise may simply grade from the supernatural. God K appears to personify lightning, shockingly powerful but fructifying, a strike to the earth that releases vegetation in its aftermath. The eccentrics store his charge. In remarkable research, Zachary Hruby, a specialist in Maya lithics, has discovered paintings of the same god, along with others, on flint flakes from Piedras Negras, Guatemala.[35] A dire certainty is that many archaeological projects have, in the past, wiped them clean away. The main question is, do the painted or incised obsidians and flints serve as a mere field for display, a handy, durable surface for paint? Or do the beings reside within stone, summoned to visibility by human intervention? By this view, the production of flint and stone objects, especially with such symbolic freight, is less a shaping of durable material than an encounter between flesh-and-blood craftsman and the immanent spirits of stone. It is probably no coincidence that several Maya texts refer to "wood-images," *te'baah*, and "flint-images," *took'baah*, in apparent couplets. These may document godly effigies of such materials.

In one respect, though, obsidian differs from flint. It is, for most of its users and producers, decidedly foreign. At Piedras Negras, during the Late Classic period, it drips with elements linked to the Mexican city of Teotihuacan, an imperial capital that had, at the time of these sculptures, fallen into irrelevance. Most Maya obsidian came from the Guatemalan quarries of El Chayal, near present-day Guatemala City.[36] That certainty of origin may have eluded the lowland Maya, the anchors of this book, who saw it more vaguely as highland or remote in source. If flint is handy for war, a common material for a common occurrence, obsidian was accorded a different function. Par excellence, it performed sacrifice: the flesh it cut was often unwilling, an enemy warrior's, or the umbilicus of a newborn. The suffering or receiving body was now under full, decisive control. Obsidian, shown by Maya convention as dark, limned with a sign for "night," and hooked, was the preferred material for bloodletting. And for good reason: famously, it cuts clean and is less likely to infect. For some captives, such concerns were negligible, as they would not survive their meeting with the blade. In glyphs obsidian tends to accompany a gashed human head, and the celebrated Hieroglyphic Stairway



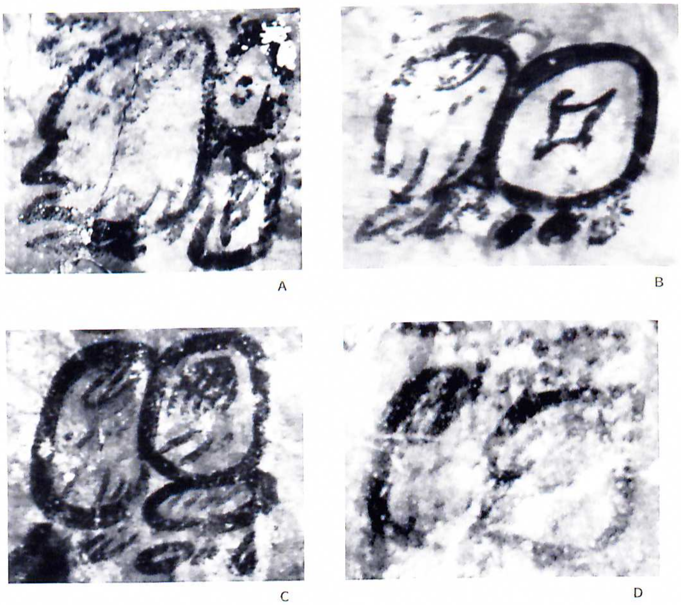
**16** Eccentric flint, Belize? (Dumbarton Oaks Research Library and Collection, Washington, D.C., PC.B.587) at Copan, among the most impressive of Maya monuments, can be seen as more than a commemoration of dynasty. Running up as a low balustrade are outsized obsidian blades, lining an ascent to sacrifice in the temple above and, probably, a rapid descent by victims.

### People Matter

Humans are complicit in the release of material potential. At times, they themselves become material to be shaped or worked. Or, in a few cases, their identities entwine so closely with other matter as to merge with it.

Mayan languages report many words for what people do, but the glyphic texts are more selective.[37] They record an act of slicing, *sus*, once, at Copan, Honduras, in relation to bone. Perhaps they inscribe accounts of weaving, *jal*, but that is inferential.[38] More certain is that they discuss "clothes," *bubk*, noted in gathered cloth in the Bonampak murals and from Chinikiha, Chiapas, down the Usumacinta drainage, not far away. *Pibk* is known to mean "skirt" or "back rack" in several texts. As mentioned before, balls of stone or other substance are made round, *pet*, and a semantically related word for "making round," *wol*, occurs on one ceramic vessel. This last had more to do with making spherical balls from gummy sap, the "blood" of trees. The Maya certainly carved. Over a hundred sculptors are attested, their names chiseled with care on the frames or background of their handiwork. The term for painting, *tz'ibb*, is less controversial. Then the Maya undo. Captives wear ripped cloths in the Late Classic. The subverted integrity of the material hints at the precarious future of their bearers. The white or dun cotton, too, was sure to contrast with streaks and blotches of sacrificial blood, a point noted earlier. The unmaking extends to the systematic smashing of pottery. Perhaps part of cleansing rituals, timed to coincide with shifts in the calendar, their actual motivation is unknown—no texts talk about them. Several are likely deposits, of ritual purpose, for subsequent renovation of a building. Despite these uncertainties, the effects are plain: smashed jades and pottery, broken figurines, bone, shell, and other objects, some intentionally broken.

Materials also influence titles at royal courts of the Classic period (fig. 17). The Bonampak murals, from A.D. 791, identify a sacrificer, cutting the hands of captives, as a *baab took'*, the "head flint." In another room, figures are called *ba te'*, from *baab te'*, "head wood" or "head stick," a bailiff, ready to herd and cudgel into submission. Alongside are other people tied to the control of shields, *baabpakal*,



**17** Persons linked to materials and objects, Bonampak Murals, A.D. 791, murals, Chiapas, Mexico: A) *baah te',* "head-wood," Caption I-26; B) *baah tz'am,* "head-throne," Caption I-34; C) *baah pakal,* "head shield, Caption II-23; D) "head flint," *baah took',* Caption 38-39

"head shield," or *baah tz'am,* "head throne." In murals from Xultun, Guatemala, family relations and birth order obtrude.[39] An "older brother obsidian," *sakun taaj,* sits near the "younger brother obsidian," *itz'in taaj,* both in attendance on a late monarch at the site. Such personages, crucial to courtly functions, both control objects or the materials within them and *become* those objects in an elaborate choreography of animate and worked matter. Humans are transformed, quite literally, into the tools of statecraft, the walking instruments of royal will. The objects they personify belong not to them, but to the king. Ultimately, in courtly practice, the maker is less crucial than the owner.

### The Potential of Matter

The Classic Maya thought a great deal about matter and its use, leaving us to find evidence of those beliefs in words, images, and vestigial terms in descendant or related languages. The notions are presented by conventional means, in categories both systematic and detectable. To our reward, any ad hoc study, fixated on this or that detail, soon discovers a set of principled understandings that order the whole. Matter was named and typed or classed, observed in growing and harvested plants, mined from the stony ground, and brought from distant locations, some of uncertain or fabled origin. People so identified with the tools of those materials that they went by such labels as their main titles at court. The conventions that allow these conclusions suggest a more subtle point about Classic Maya imagery. In any one scene or text, a particular flint, obsidian, staff, or bead are there, or said to be. But their depiction is always idealized.[40] A conventional representation is, in some respects, a form of betrayal. It removes idiosyncrasy to accentuate a more important, essential property. So as to clarify, it simplifies and occludes. Only in the Late Classic, generally speaking, do the Maya retain idiosyncrasy by naming this or that object with a distinguishing epithet. Or they may show, as in one singular example from Aguateca, Guatemala, the minute details of a headband jewel that was later uncovered in excavation. The Maya evidence on matter and materials is clearer in another way. Deeper understanding comes not from appeal to cognitive processing or by positing a symmetrical equation of humans to matter. The Classic Maya gave humans the controlling hand. To see animacy in objects is not the same as conceding their parity to people. Nor are things and their theorization always the right target. What intrigue most are thoughts about the types and natures of material. Spirits dwelled within, along with potentials. Substance stood ready to change from one thing to another.

# 2

# To Become Something Else

> … imitation, as opposed to copying, consists either in the interfusion of the SAME throughout the radically DIFFERENT, or the different throughout a base radically the same. —Samuel T. Coleridge, *Biographia Literaria*

At some point fourteen hundred years ago, a Classic Maya potter and a painter worked in unison on a bowl. Perhaps they were the same person.[1] The potter coiled, smoothed, slipped, and burnished the clay. Stepping in, the painter adorned the surface or gouged out a design. The bowl, still leather hard, went back for firing. After breakage or long use the pot entered the ground as a scatter of sherds or a whole object. If complete, it found its way into a cache, a deep cave, or a tomb. There it lies still, unless some discoverer, a looter, accidental digger, or archaeologist, has happened to find it.

One trait of the bowl merits close attention. All ceramics consist of one material: additive and malleable clay, hardened by heat. Yet, on occasion, the surface might resemble other media. It looks like feline pelt or wood grain, the plaiting of baskets, the dull color of dried gourds. Its shape, too, might evoke a shared function with perishable originals of grass, vine, wood, or squash. The main questions to ask: What thought or process operated here, and what do they say about the Classic Maya and human nature in general?

In groping for answers, we should remember one basic point. At some level, all depiction involves paradox. Through representation, one thing is made to change into another. Our pottery bowl, for example, might echo a woven or carved original, although, in the process, something unusual happens too. A little bit of eternity creeps in. The stone image of a Maya king endures far longer that its human inspiration. Similarly, in archaeological sites, buried sherds come close to immortality.

Chochola vessel with attributes of carved wood, c. A.D. 750, Campeche or Yucatan, Mexico (Dumbarton Oaks Research Library and Collection, Washington, D.C., PC.B.530)

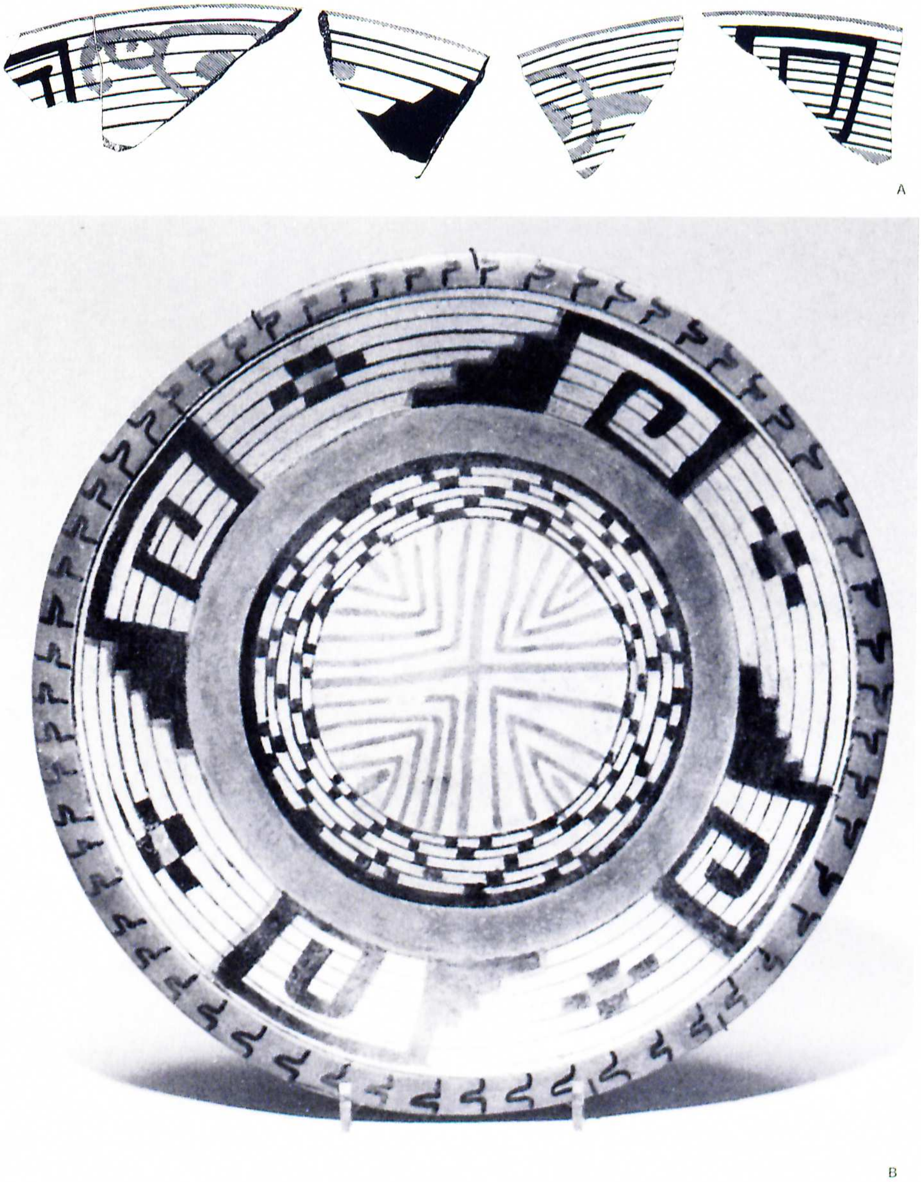
With the bowl, however, the potter and painter zeroed in on materials other than human flesh. As this chapter shows, the Classic Maya took an active interest in the creation of enduring things. They struggled against a tropical setting inimical to long-term preservation. In modest clay and other materials, they transformed perishable models into more sturdy forms. For the Maya, the process was unilateral. There is almost no evidence that perishable objects, either the few that survive or those depicted in imagery, derived their main stimulus from more permanent materials.[2]

Along the way, material transformations tell a larger story about invention and longing. As explained in the last chapter, there is a clear human need, felt in all places and times, to play with materials. Through mimicry, the Maya, too, created hard and permanent objects; time and decay lost some of their bite. Of course, they were not alone in this concern. Debates about such play lie at the core of much scholarship in anthropology and the history of art. What happens when materials blur and transfer their properties stirs the imagination everywhere. Past and present, humans have a compulsion to remake the world, and, in thinking about it, to ponder the very essence of that which is similar, different, or identical. The result: hybrid objects that both are and are not what they seem, along with a deeper grasp of how humans relate matter to permanence and permanence to matter.

## Migrating Matter

That certain Classic Maya materials refer to others is an old if neglected observation. One archaeologist notes that a cylinder vase carries an "allover armadillo-back-motif," as though that were a humdrum observation, begging no explanation.[3] Would an armadillo design, a reference to humble, smelly substance, a flea-ridden original, not need some comment? In fact, for the Maya, such "quotations" of one material (an armadillo hide) by another (a clay vessel) are relatively common in certain times and places. In the Classic period, the cross-references took predictable paths, moving in systematic ways from initial inspiration to receiving material. The source was usually, but not always, impermanent. It did not survive long. Often as not, the target offered a more stable or even imperishable state. The more one looks for such transfers or cross-media quotations, the more one finds. Pots recall baskets, cloth, cured pelts, ceiba-tree trunks, gourds, feathers, wood, metal, even armadillo hide; delicate cloth appears as resistant stonework.

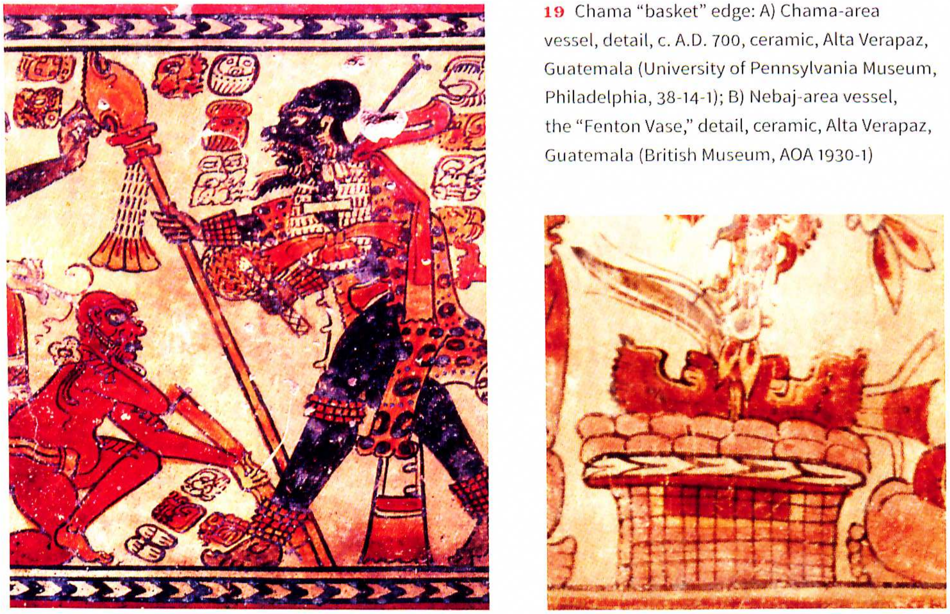
Consider the following evidence, ordered by material.



**18** "Baskets" on ceramics from Uaxactun or Uaxactun-area, c. A.D. 700, ceramics, Guatemala: A) Uaxactun, c. A.D. 700; B) bowl

## Basketry to Ceramic

Evocations of baskets on lowland Maya ceramics occur as early as the Late Preclassic period, in the final centuries B.C., but fitfully so.[4] The clearest and most abundant examples come later. These include a set of shallow bowls from the area of Uaxactun, Guatemala, each dating to circa A.D. 650–750 (fig. 18). Interiors and exteriors reveal horizontal coils with regular spacing. Vertical stitching disappears altogether. The bowls show schematic birds and a step-fret or "greca" motif common to basket originals or even some woven in textile. A closer view confirms that the


A

B

**19** Chama "basket" edge: A) Chama-area vessel, detail, c. A.D. 700, ceramic, Alta Verapaz, Guatemala (University of Pennsylvania Museum, Philadelphia, 38-14-1); B) Nebaj-area vessel, the "Fenton Vase," detail, ceramic, Alta Verapaz, Guatemala (British Museum, AOA 1930-1)

birds are anomalous. With their stepped backs and blocked-out, monochromatic bodies, they appear to violate the canons of Maya imagery. They do not look like the vibrant fowl in other imagery of the Classic period, and thus hint at systems of representation that bridged different crafts.

The same museum at Uaxactun houses another bowl, now hemispheric, from roughly the same time. It highlights horizontal coils over vertical stitching, except for one detail. Several dyed geometrical forms combine into five-part figures.[5] By wide understanding, tight coils require skill and experience, and are among the first to go as the technology declines. The intent may have been to accentuate a valued attribute in the source material, and, indeed, most pots were made by a coiling with clay. Other vessels stress a uniform vertical stitching and checkerwork with alternating colors. Vigorous patterns of this kind resemble textiles and may belong to a separate category, with simultaneous road signs to different materials. Yet other ceramics spotlight panels of tight and imbricated diagonals interspersed with gods. In basket technology, imbrication eliminates any chance of spillage by sealing a surface yet further. The presumed side effect of such depictions is that, as with the coils, they underscore the inherent value of the original.

A third pattern takes the concern with material to a new level, showing multiple strands of grass or vine disciplined into horizontals or plaited diagonals, often picked out in alternating fields of red and white.[6] The diagonals accent the very essence of "basketness" by duplicating a form unlikely to occur in any other material, even textile. A treasured recollection of mine is lifting two such bowls, placed lip-to-lip, from a Late Classic dedicatory cache in the L7-11 pyramid at El Zotz, Guatemala. Another unusual form, a ceramic coffer, a likely holder of screenfold books, recalls in one example the bulging sides of Mohegan baskets in the American Midwest. A source in basketry may explain, too, a diagnostic element on the rim and base of Late Classic polychrome vessels from the Alta Verapaz region of Guatemala. A white-and-black chevron, a key indicator of the so-called "Chama style," appears to depict a braided basket edge (fig. 19). The suggestion is supported by a painted scene on a vessel of Late Classic date in the British Museum, which picks out the body and chevroned rim of a basket in the minutest detail. Even the crudest baskets found their counterpart in the roughened surfaces of water vessels from the Late Classic in northern Yucatan or Campeche: as alternating, plaited, even twilled diagonals or a more intricate weave.

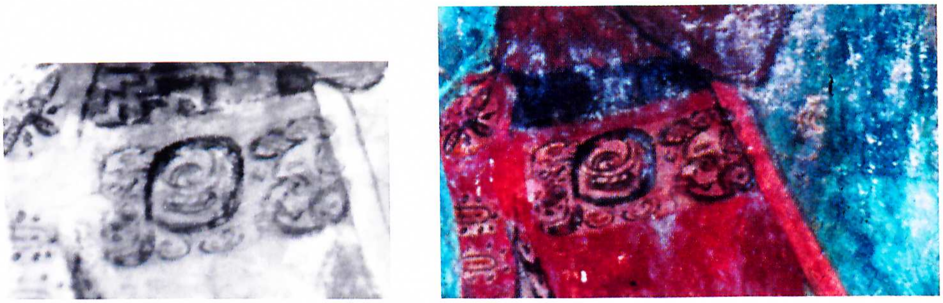
A basket transformed into ceramic does not occur just as a vase or bowl. It is also a lid, of which several show unambiguous plaiting or checkwork. Their tops, like decorative coiffures, are clutched and bound like bunched grass.[7] The Maya crafted cruder baskets in Classic Maya imagery, such as traveler's hats or containers for eggs plucked out of jungle nests. But these were seldom reproduced in more permanent form, perhaps because, intrinsically, they served as provisional objects of little value. Most likely, copying was scale- and function-dependent—a matter of comparable size and shared use. Fans and war shields, the first to cool the body, the second to parry blows, came from basket technology but, as large objects, permanent copies of them would have been dauntingly heavy, unusable except as sculpture.

### Cloth to Ceramic

In use, cloth is seldom flat. It wraps bodies, folds into puffed rectangles, and gathers into headdresses. It also surges with its own symmetries and angularities. Figural representation is often present but subjugated to the rule of blocky, repetitive design.[8] Close resemblances exist, too, between painted designs and those on textiles, both appearing as fluid but integrated designs of diamond shape or flowery circles.

Step-frets or grecas abound in depictions of textiles (fig. 20).[9] On some pottery they reproduce not just basketry but woven cloth bands, items that go back to the beginning of the Early Classic period (fig. 21). Strips reinforce the edges of plain weaves, preventing the unraveling of fabric and undue wear on weaker cloth. They serve also to accentuate edges and to move color across the face of a woven surface. In design and intention, the final volute in the greca wraps the color opposition

**20** Step-frets on depictions of belts: A and B) Bonampak murals, Room 1, Figure 74, with Caption 55, A.D. 791, murals, Chiapas, Mexico; C) Caracol Structure B19, sub-operation C41, c. A.D. 700, ceramic sherd, Belize.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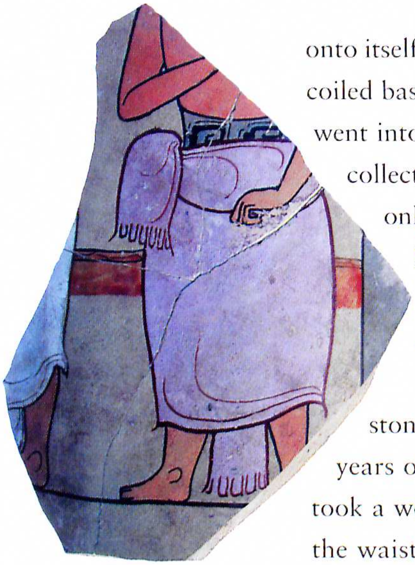
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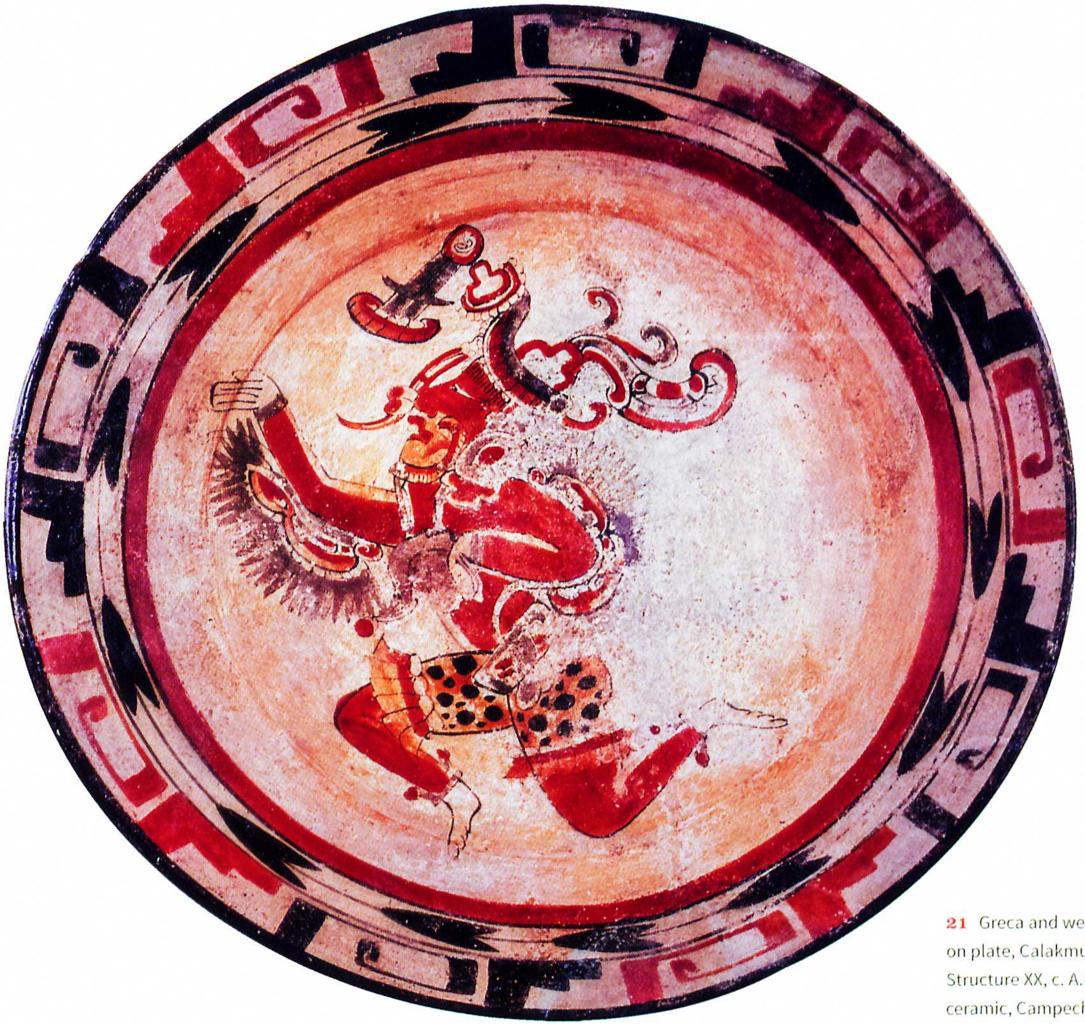
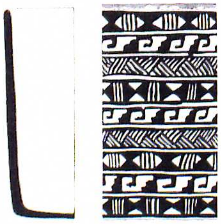
onto itself in dynamic complementation. More than plain weaves, and much like a coiled basket, elaborate borders among the Maya advertised the skilled labor that went into them. Strips did not require broad, ungainly looms, or the large-scale collective labor behind tributary mantles of white cotton. They could be made only with high density of weave, still a mark today of quality among highland Maya. As belts they girded noble men, such as those in the Bonampak murals. The same source shows that they embellished the edge of otherwise undistinguished mantles, soon to be given as tribute to the king.

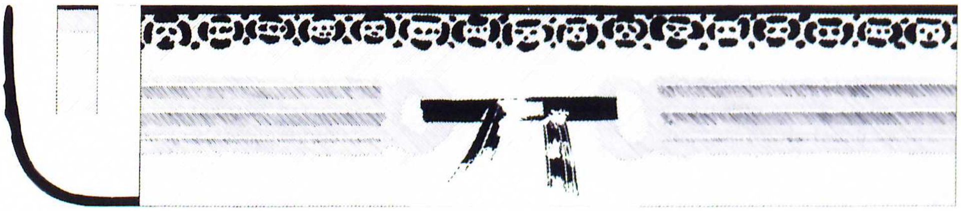
The play of materials shifted not only from weaving to clay but to stone mosaics, as in a belt found in a crypt burial at Tikal, from the middle years of the Early Classic period.[10] A concrete version of a suppler original, it took a woven belt and segmented its parts into plaques that could adjust around the waist. In a separate process, textile designs could stack on some vessels as especially intense citations of the source, appearing not as one band but in row after row of them (fig. 22). As much as the "basketness" discussed before, these concentrated the essence of rich weaving, a cascade of quality laid out in ways that did not resemble the depictions of cloth in Maya imagery. Intensity and precision of quotation might well have differed from target to target. Some echoed in faint reverberation, others were nearly veristic in detail. There may have been yet more to this, in partial account of the conceptual transfer of material. Like the human body, most ceramics are round in section. For this reason many Early Classic vases show heads on their lids, in pervasive likening of a vase or bowl to a human frame. But the link becomes more compelling on a bowl from Altun Ha, Belize. It shows a ballplayer's belt, fastened from behind, cinched and wrapped as though the bowl were a human midsection (fig. 23). A jaguar kilt peeks out above, near the rim. Other, near-belt effects characterize flat-bottomed bowls from Uaxactun, circa A.D. 700. And, in some cases, the dress may have belonged to gods and goddesses. At Dos Pilas, Guatemala, a vessel dating to just before A.D. 726 appears to wrap the



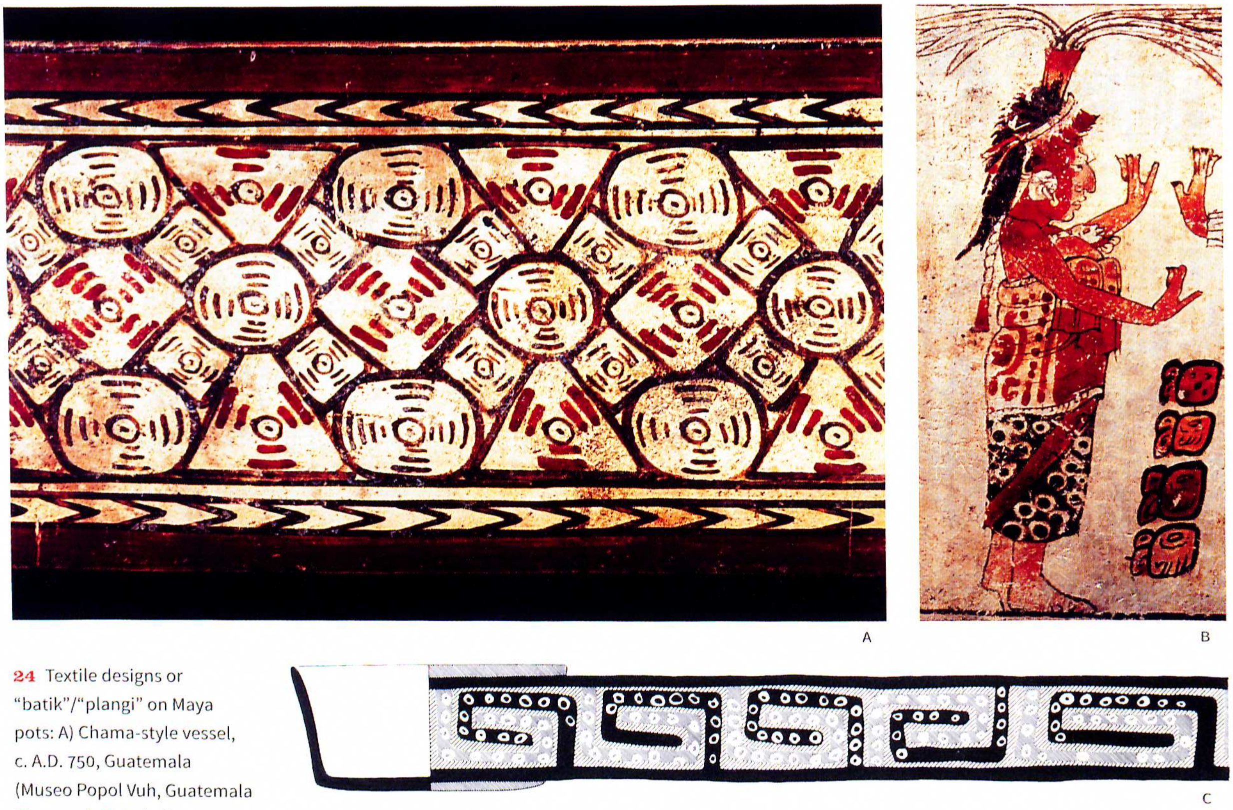
**21** Greca and weaving design on plate, Calakmul Tomb 1, Structure XX, c. A.D. 500–600, ceramic, Campeche Mexico



**22** Stacked "belts" on ceramics, Tikal Burial 23, orange polychrome, c. A.D. 650 (University of Pennsylvania Museum, Philadelphia, 38-14-1)



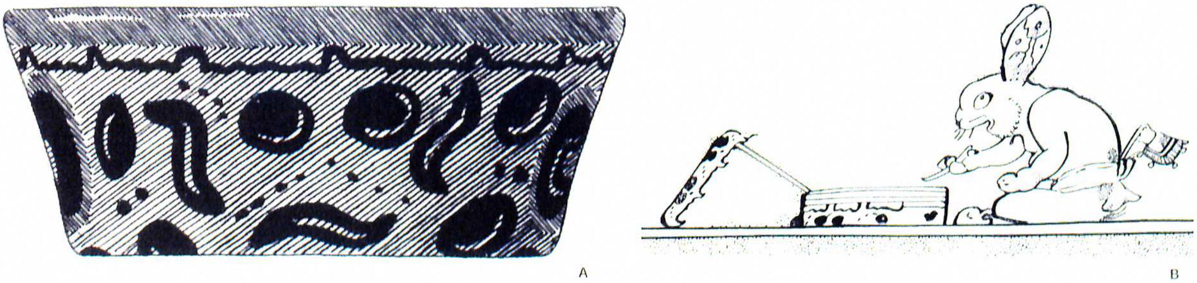
**23** Altun Ha ballplayer "belt," Altun Ha Tomb B-4/7, c. A.D. 600, Belize



**24** Textile designs or "batik"/"plangi" on Maya pots: A) Chama-style vessel, c. A.D. 750, Guatemala (Museo Popol Vuh, Guatemala City, 0141); B) Polychrome vase, c. A.D. 700, Guatemala (Kimbell Art Museum, Fort Worth, Texas, AG 1979.02); C) Palmar Orange Polychrome bowl, Tikal Burial 147, c. A.D. 750, Guatemala (University of Pennsylvania Museum, Philadelphia)

skirt of an aged goddess around its surface, woven belt near the rim, below a fabric with crossbones and eyeballs. The sinister associations make sense of this figure: a mythic midwife and healer, she attends birth and death, but also the creation and destruction of worlds.

The second feature worthy of note is batik or the related technique of plangi, which may find material transfer in the many "resist" ceramics among the ancient Maya (fig. 24). These distinctive pots can be understood solely as an inventive practice of ceramic technology, the product of painting and daubing to "resist" later covering. Yet, by another view, the dots and looped lines point to an inspiration or parallel track in batik.[11] As such they evoke textiles long gone. The circles within circles, their organization into rectangular or square frames, recall in particular the tie-dyed plain weaves of the ancient Andes, which exhibit the same complex alternating rhythms of color and alignment. The first decades of the Late Classic period at Piedras Negras, Guatemala, are rich in resist designs, often in strongly contrastive red and orange, highlighted at times with black outline. A solid argument

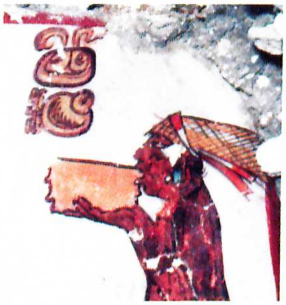


**25** Jaguar hide and Maya screenfold book: A) bowl, Uaxactun Burial A40, c. A.D. 700, Guatemala; B) Rabbit scribe with book covered by jaguar hide, codex-style vase, c. A.D. 700, Guatemala or Mexico (Princeton University Art Museum, y1975-17)

can be made that these distinctive ceramics correspond closely to the Piedras Negras kingdom. Used across society, regardless of status, they served as a marker of social or political attachment through everyday objects. If the argument for cross-media transfer holds, this suggests distinctive clothing for certain kingdoms, much like the dress that distinguishes highland Maya villages today—to be sure, some of that legacy is fairly recent or Colonial in origin, but the need to contrast may not have been. So, too, for basketry: although copied in clay, a basket style might have signaled its origin in a certain community.

### Cured Pelt to Ceramic

Jaguar or spotted-cat pelts "drape" over many Maya vessels, especially in the seventh century A.D. They have two general attributes. The first is a cluster of black spots, the second an edge—sometimes ragged, sometimes smooth—with small extruded loops at regular intervals. The loops appear to reflect where the hide attached to a drying board, perhaps with wooden pegs. Its moisture in slow retreat, the skin pulled away from the pegs, leaving a crenellation. Where present, the loops cue a cured animal hide and occur as such on jaguar hides that cover Maya screenfold books (fig. 25).[12] Spotted-cat pelage can range from markings of texture and varied spots to mere curlicues of varying size. Pelts were frequently used as the kilts or skirts of kings, a sumptuary privilege evidently denied to nonroyal people. Other skins, including human ones, were used by the Classic Maya, but, as with deer and the much-feared puma—more likely to attack a human than any jaguar—they have few distinctive markings. Of dun, tanned leather, one such bowl, with ragged outline to signal its material, appears as a drinking container in Late Classic murals from the Chiik Nahb group at Calakmul, Mexico (fig. 26). Another dried skin, of local pit vipers, may appear on ceramic vessels, but the referent seems more symbolic than media transfer: "snake" is, in most Mayan languages, a near-homophone for "sky," notations of which adorn some Classic vessels.



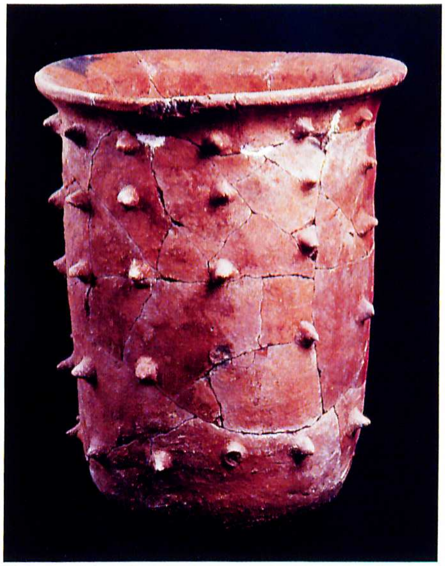
**26** Leather drinking container, Calakmul Structure I, North Acropolis, c. A.D. 650, Campeche, Mexico

### Ceiba Tree to Ceramic

Incense burners occur across the range of Maya ceramic production, yet a subset displays appliquéd spikes that resemble the protuberances—the "mammiform prickles"—on the bark of young ceiba trees (fig. 27).[13] The trope goes back to the Late Preclassic period but continues in the Classic. As a feature, the spikes have several explanations. The first, heard widely but not made explicit in any published source, is that they allow a person to pick up a burning receptacle without hurting the hands. That such ceramics have a sacrificial purpose, offering incense, paper, rubber, blood, makes the suggestion banal and suspect. An alternative, also a matter of folk wisdom among archaeologists, is that the ceiba itself is the referent. As a world tree, it has mythic and cosmic resonances, a sustainer of the sky, a primordial landing place for a monstrous bird, and a cosmic center suitable for sacred, burnt offerings. In this respect, the sectioned young ceiba, hollowed out for offerings, becomes a speculative origin for the form. An early depiction of a censer is closer to its cylinder than the waisted and footed shapes of later incense burners. As a tree, the ceiba has unusual properties, starting small with its juvenile spikes. Eventually, it thrusts high, sturdy, massive, its bark smooth like skin, to spread out over the canopy; seasonal cotton from the tree flutters through the forest, for use as stuffing in pillows. Perhaps not coincidentally, the sap of any Maya tree is labeled by the same word for the blood, *k'ik'* or *ch'ich'*, that might be consumed by a censer. But the quotation is incomplete. The distinctive skin was the focus more than the tubular mass of the tree. Here, too, are examples of cross-media blending, of blurred surfaces: an incense burner from Copan, Honduras, lays out its surface of spikes in a weave or plaiting, as though of basket or cloth.

### Gourd (Some Pyroengraved) to Ceramic

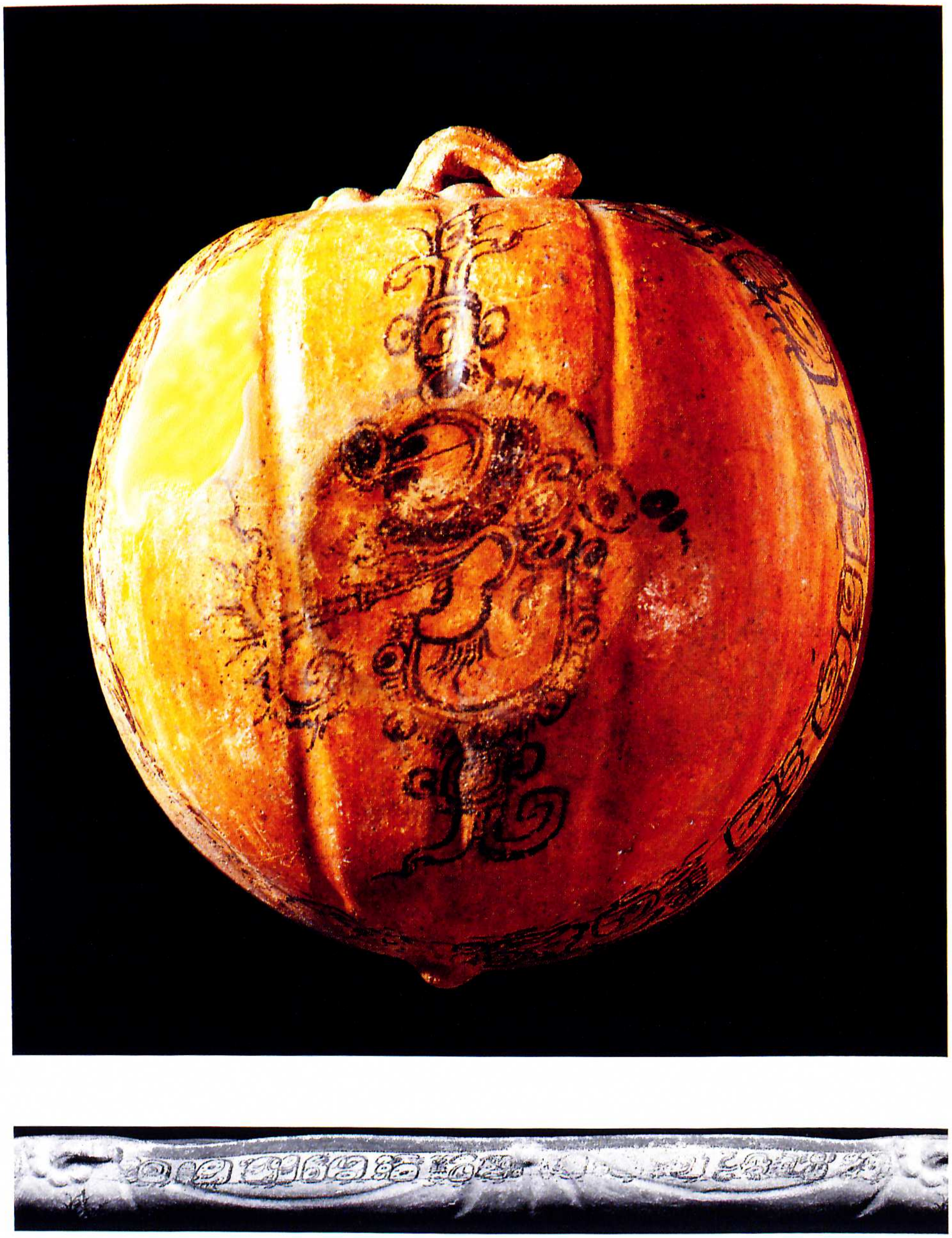
Any globular or hemispheric shape raises the suspicion that the intended allusion was a dried and sectioned gourd.[14] Gourds were present from the earliest agricultural period and among the early-twentieth-century Lacandon Maya, who prepared and decorated such receptacles for ceremonial drinks. Some were offered to deities or, as with many Maya today, for daily use, the default container, an inexpensive holder of liquid, rugged yet available everywhere. But not always mundane: Terminal Classic examples from Chichen Itza, Mexico, had expert and careful painting—they were not, one presumes, of inherently low worth. By telling analogy, the pottery containers used in Ch'orti' Maya ritual evoked the gourd vessels more usual to sacred practice. The examples from Chichen were more elaborately decorated than their gourd originals, however. In the Classic period, some transfers could not be more transparent, with botanically accurate traits of bottle gourds and squashes (fig. 28). The Late Classic examples, especially from the middle years of that period, tend to be flamboyantly three-dimensional; earlier ones, from the first decades of the Late Classic, use paint alone to show the ribbing or base and stem (fig. 29). Often tan in appearance, thinned and hollowed like a scraped squash or bulbous calabash, the vessels were, to judge from those with explanatory texts, designed to hold liquids. Water was present, but mixed with chocolate, maize gruel, or more fermented substance—the presence of terms for "fruit" suggests a taste, not for sugars, but for the alcohol converted from them. The gourd form became dominant, nearly diagnostic, during the final decades of pottery production in the sixth century A.D., but an exceptional example occurs as early as the fifth century, a chocolate pot now at Dumbarton Oaks. Later, it tended to diminish in importance. The shape also figures to overwhelming extent in the earliest lowland pottery, for reasons that may have to do with novel, communal festivities. If gourds were everyday, replicas in ceramic served special occasions. Certain inscribed forms with darkened or mottled brown surfaces further suggest the presence of pyroengraving by hot styli.


**27** Incensario and "ceiba" bark, Copan, OP 37/5/109 Tunnel 4, Level 8, c. A.D. 650, Honduras

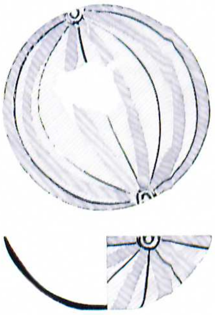
### Dried Armadillo to Ceramic

For the Maya, past and present, the armadillo was delicious quarry, the *ibach* or *wech* in Yukatek, *ib'ach* in Ch'orti' and its ancestral language, Ch'olti'.[15] Bishop Diego de Landa, reporting in the mid-sixteenth century, called it a "great rooter ... very like a horse covered with armor... very tender and good to eat." When flensed and dried, it served as a container, a function documented historically among the Ch'orti' of southeastern Guatemala. This use may explain the Nahuatl or Aztec term for the creature: *āyōtōchtli*, "gourd-rabbit," perhaps punning on a similar term for "turtle," but referring more securely to the fact that gourds, like scaly hides, hold liquid. Indeed, in the 1940s, Maya potters in Yucatan made the connection yet more explicit by painting armadillo designs on *ollas* or water jars. The transference went far earlier. In Classic Maya painting, the armadillo hide materializes as rows of triangles. Scutes, the gristled part of the hide, may occur to either side. Fuller depictions of armadillos leave little doubt that the attributes are correctly identified (fig. 30). A few such representations are complete. The full

**28** A Late Classic bowl as "squash" or "pumpkin," c. A.D. 700, Guatemala or Mexico (Kislak Collection, Library of Congress, PC 0013)

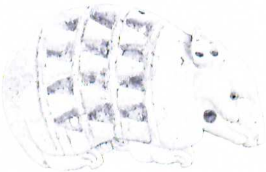


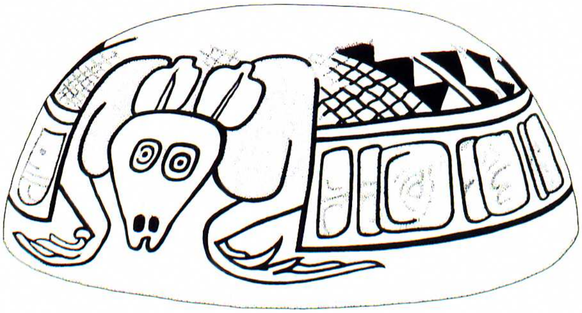
animal hunches over the surface of ceramic container, its innards now the contents of a bowl, the arc of its back the outline (fig. 31). Toward the end of the Classic period, especially in Honduras and El Salvador, effigy vessels displayed the head and carapace, and other such examples occur in north-central Guatemala. But the usual depictions are less explicit. They indicate the presence of hide by "quoting" a part of the hide—not porcine head and hairless ears but simply a set of banded triangles and scutes (fig. 32). Such examples are relatively common, especially in the period from A.D. 650 to 750, appearing at sites as diverse as Edzna, Mexico, El Mirador, Guatemala, Rio Frio Cave E, Belize, and Uaxactun, Guatemala. Evidence from Ch'orti' Maya hints at further meaning: burned and turned to ash, armadillo hide today is thought to prevent excessive menstrual flow.

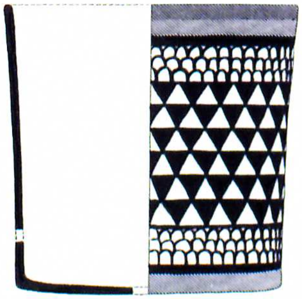

**29** Painted "gourd" on hemispheric bowl, Altun Ha, Structure A-8, Unit 8, Belize

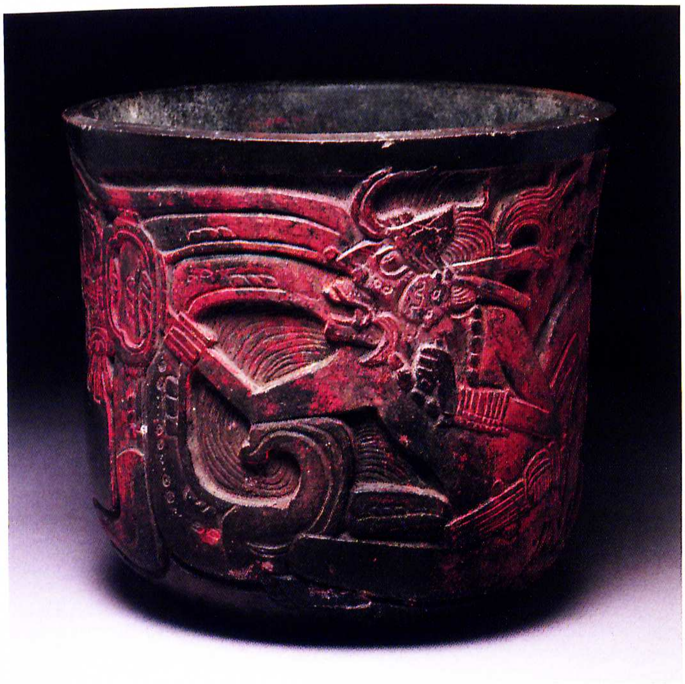
### Wood to Ceramic

Several vessels show openwork piercing and sharply cut angles like the gouging and excision of wood.[16] Others display long, polished grooves, fluting a pot or corkscrewing up their sides, a form that is suggested indirectly by vertical bands of paint. Almost oily in appearance, the dark burnished shapes, scribed with lines or excised into designs, require little imagination to be seen as hardwoods. Several Late Classic examples display the wooden grain of their original as vertical bands and dark brown on an almost greasy surface. A probable tree trunk, hollowed out to make a vase, may have been found at Chiapa de Corzo, Mexico, and the thought arises that, as a form, Maya cylinder vases, of increasing frequency in the Late Classic period, originated in such tubes. A difficult challenge is distinguishing between a carving of leather-hard clay and forms that recall the color, wall thickness, and cut edges of wooden originals. Such are the so-called Chochola vessels that come from western and northern Yucatan (fig. 33). Others, with nubbin feet, flat bottom, and


**30** Armadillo, Yaxha Offering 10, c. A.D. 700, shell, Guatemala (YXMM 098)


**31** Armadillo bowl, c. A.D. 650, Guatemala

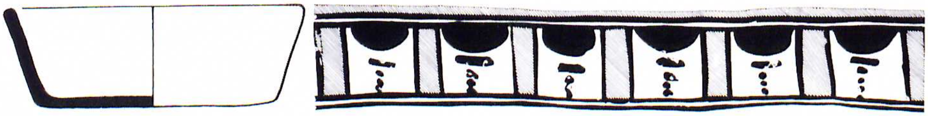

**32** Schematic armadillo hide on cylindrical vessel, Uaxactun, c. A.D. 700



**33** Chochola vessel with attributes of carved wood, c. A.D. 750, Campeche or Yucatan, Mexico (Dumbarton Oaks Research Library and Collection, Washington, D.C., PC.B.530)

RIGHT

**34** Feathers ringing a bowl, Zacatal Cream Polychrome, Tikal Burial 116, c. A.D. 734, Guatemala (University of Pennsylvania Museum, Philadelphia)



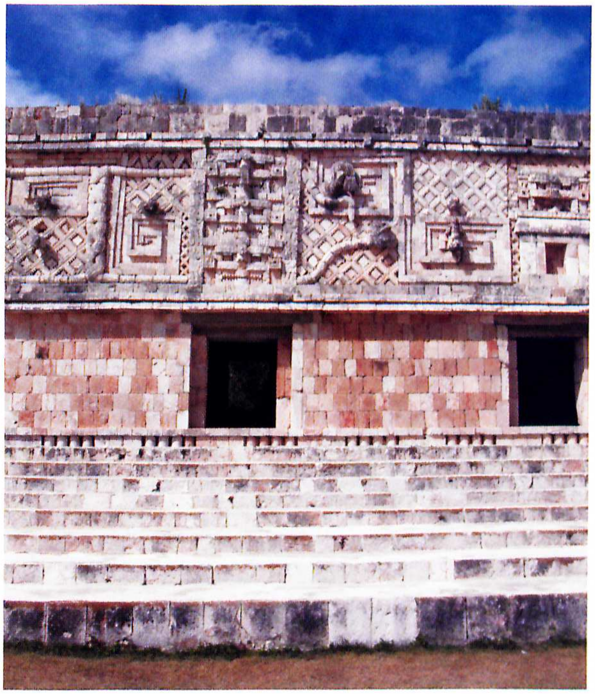
outthrust walls, find a near perfect match in rare wooden originals at sites like Tikal. Although proof is impossible to find, the influence of wood might have been vast: the unusually thick, smoothed shapes of most Preclassic pottery among the Maya could have wooden parallels and even wooden originals.

### Feathers to Ceramics

Plumes, too, appear as vane feathers; the hollow base is seldom if ever shown. The plume is always that of an owl, the *muwaan*, associated with a god of trade, travel, and dark doings.[17] Oriented upward, they ring bowls, as though, improbably, the food were contained by feathers alone (fig. 34). As with the composite designs of basketry and textile, these might have reflected ornaments long gone. Pomo gift baskets of California were known, for example, to include feathers and other trimmings. Feathers, too, were complex and varied in meaning, and one colonial source indicates severe penalties for those who plucked them from rarer species. The girding of bowls with feathers may have marked these as sacred objects, in accord with the use of eagle feathers on sacrificial bowls elsewhere in Mesoamerica. Notably, those sacrificial bowls were conceived as gourds, in twofold reference, to both a perishable vessel and its sacred accents.

### Textile to Stone

The transfer of designs from basketry or textiles to the facades of buildings is attested in many buildings from later, Postclassic periods in central Mexico and Oaxaca. The enigmatic, oracular centers of Mitla and Yagul, Oaxaca, have few vertical surfaces without such designs, arranged into mosaic facades, their constituent blocks well suited to replicate the stepped forms of textiles.[18] The surface can be seen as "wallpaper," an aesthetic enhancement of flat surfaces, otherwise nondescript, or, more deeply, as an evocation of varied textiles hung on such surfaces. The royal buildings of Palenque had many holes for the external suspension of perishables, like raiment to be changed when the occasion demanded. Yet textiles decay, rip, and lose luster to long-term exposure. A version in stone reduces worries about decay. Such cross-media transfers make good sense, then, in several Late Classic buildings of the Yucatan peninsula, especially in the Río Bec and Puuc regions (fig. 35). The petrification of organic building materials also explains the disorderly "thatch," noted too in Chapter 1, captured in stone on a Late Classic building at Machaquila, Guatemala, or the "wooden pillars" marking the exteriors of buildings in Late Classic Campeche, Mexico.

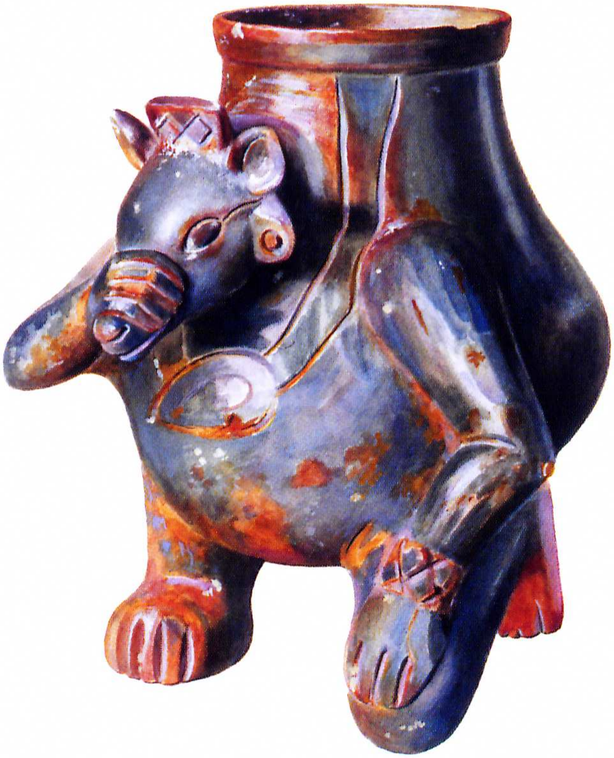


**35** "Textiles" in building mosaics, West Building, Nunnery, Uxmal, c. A.D. 750, Yucatan, Mexico

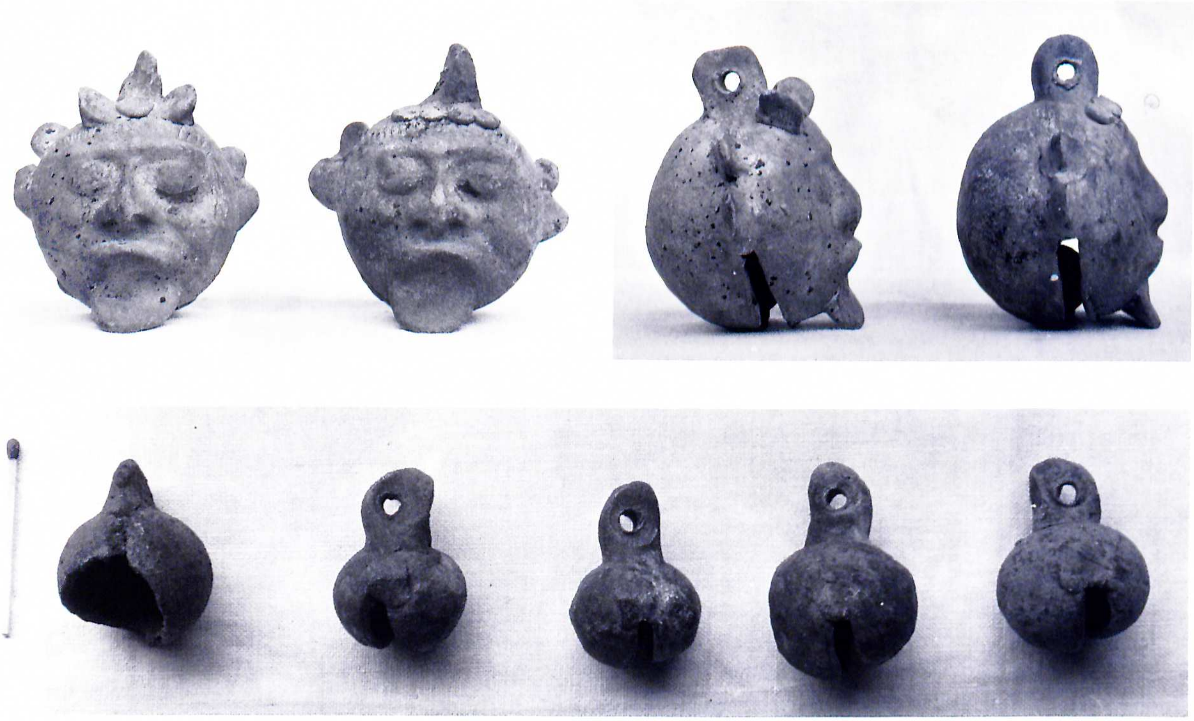
### Metal to Ceramic

Aside from trade pieces, the advent of Maya metalwork is relatively late, becoming more common in the Early Postclassic period.[19] It may be for this reason that a notable trade ceramic of this time, the "plumbate" ware named because of its near-metallic, hard-baked glaze, is often described as "metallic" in appearance (fig. 36). Makers of the ceramics were not sure to be speakers of Mayan languages, but the products of their workshops traveled far and wide, to the extent that most Maya sites yield sherds of plumbate in humus or deeper deposits. Given the chronology, it seems more useful to take the appearance at face value: it expresses a novel

**36** Plumbate vessel with appearance of metal, c. A.D. 900, Yucatan, Mexico (Museo Regional de Yucatán "Palacio Cantón," Inv. No. 10-251139)



aesthetic of broad appeal, not of basket, textile, but cast and worked metals. Like the ceramic spikes and their supposed origin in young ceiba, or the valued textiles or pelts transferred to pottery, the emphasis here is on surface rather than form. After all, no such metal vases or containers have ever been found. With plumbate, the objective was to echo a coveted, low-volume material, shaped into forms that, in metal, would have been ponderous, difficult to transport, and, perhaps, beyond technical reach: a fantasy production, evocative of newly desired substance. This would explain, in an example documented by the Carnegie Institution at Finca el Paraíso, Guatemala, a set of bells, not of cast copper but of clay. Bells or clappers were known early in the Maya region—one set of carved bone in the collection at Dumbarton Oaks, of Early Classic date, probably refers to originals made of palm nut. Another series, found with plumbate ware, are ceramic bells from a tomb at Finca el Paraíso, near Quetzaltenango, Guatemala (fig. 37); a set of roughly comparable date has been found at Aguateca, Guatemala, of a trade ware from the final years of the Late Classic period. Earlier still, by similar conceptual process, a site with little access to jade, Piedras Negras, found it necessary to replicate greenstone in clay, as bead jewelry for the collars of dead kings. And not just jade: clay replicas of prized *Spondylus* shell also went into Burial 5, the richest tomb at the site.

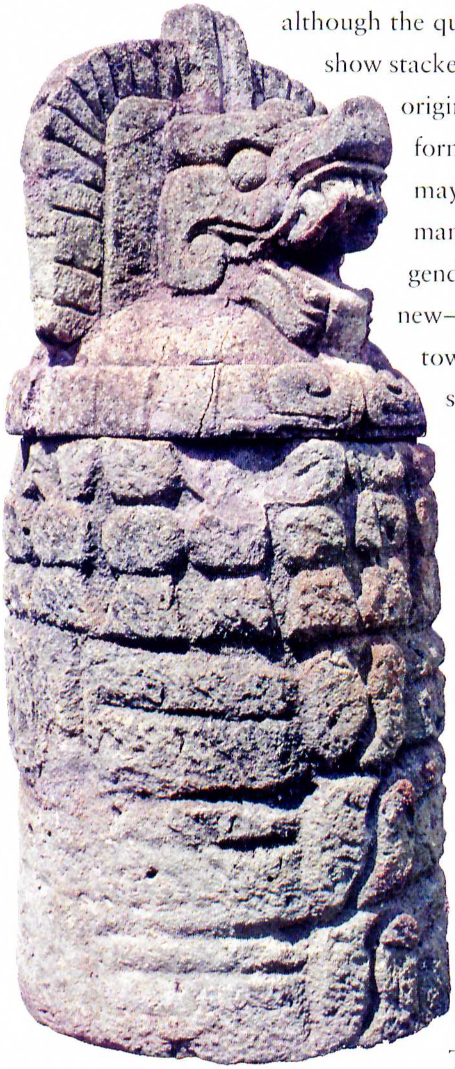


**37** Ceramic bells, Finca el Paraiso, Quetzaltenango, Guatemala (Peabody Museum of Archaeology and Ethnology, Harvard University, 58-34-20/43031, 58-34-20/43032, 58-34-20/43033)

This gathering of cross-media spreads in different directions. It involves obdurate technologies and specialized knowledge. At times, in contrast, it employs a material common to all, to be collected close to home. For most examples, the play of materials trafficked in quanta and qualities of value: finely coiled basketry, textiles of singular, outstanding weave, pelts of scarce and scary creatures, jade, metal, shell that could not be had with any ease. Others, the gourds and armadillo hides, pointed to shared function but also a witty marking of them in new media. With gourds, it was form, with armadillos the tough hide that slipped from one surface to the other. In their mimicry, the gourds were especially dictatorial—objects not *shaped* like the plants seem never to refer to them. But, if these are quotes or citations, their actual operation was fractured and incomplete. Some were close to the original, others more conjectural in their relations to lost materials. Nor did combinations always show a secure origin in this or that object or material.

The edge marks of cured pelt are a case in point. Beyond hide or fur, they appear to delimit sectors of painted surface. The intent seems to have been to draw on a cross-media transfer—valued pelt draped on the surface of a ceramic—but something subtler too. The edge marks the edge of a design.[20] Armadillo hide may also have discharged this role at the beginnings of the Late Classic period, circa A.D. 600–650, although the quotation could have been of tight diagonal weaves of fabric. Others show stacked bands or composite basket and textile that might have mirrored an original. More probable, though, is that the resulting target was a hybrid form, both new yet nodding back to its source. The very nature of a hybrid may reflect, in a way that differs from originals, a social reworking of manufacture, a collaboration of several people, including those of different genders. Whatever appeared to be the same was transfused with something new—from softer substance and strong texture, often warmer to the touch, toward harder, more polished, colder surfaces. And, on occasion, the striving for permanence went even from fired clay to stone: the common term for stone incense burners at Late Classic Copan, Honduras, was *sak lak*, meaning a white plate or object of ceramic (fig. 38). A fired clay object was not enough, and a surer, more durable example sought. The same might have been true of the *sak hu'n*, "white paper," a jewel worn on the cloth or paper headband of kings, often received at accession. An example excavated at Aguateca, Guatemala, was literally white, of alabaster, and perhaps a vitalized, more permanent form of paper itself; others, of jade, were harder still (fig. 39).

More is at stake than mimicry. This is not simply because of mixed media or odd combinations of materials. There could also have been the metaphorical mapping of cloth and pelt on ceramic "bodies," as at Altun Ha. Systematic and considered, the transfers are selective too. Only a minority of images can be explained by the mere process of copying. A large remainder revel in the possibilities of fired clay for flat, painted display. That selective imprint is mirrored in chronology. The examples here begin in earlier periods. But an acute indulgence in cross-media transfer is episodic, coalescing most strongly in the period at the end of the Early Classic period. It appears more fully in the first years of the Early Classic, especially with gourd forms, and then, by the final years of the Late Classic, abates to a notable extent. The trajectory is for no more than a few centuries, with special élan in the period from A.D. 600 to 700 and a few decades thereafter. The geographical context is just as limited. Cross-media transfers drop away from the heartland of the Yucatan peninsula and the Guatemalan Peten region in particular. The play of materials enters a different direction if plumbate is to be seen as a reference to metal.



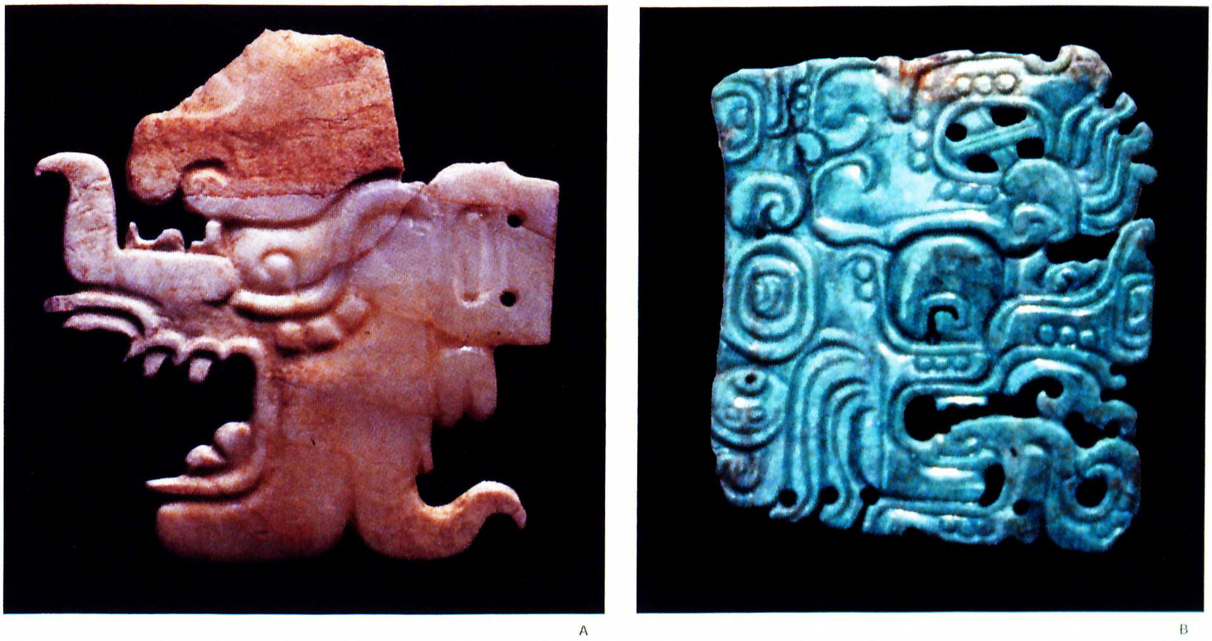
**38** *Sak lak tuun* incense burner at Copan, A.D. 772, Honduras (Centro Regional de Investigaciones Arqueológicas, Copan Ruinas, Inv. No. CPN-P-601, 602)

### Prototypes and Progenitors

The interpretive dilemma of materials-that-recall-others goes far beyond Maya examples. As noted at the beginning of the chapter, the play of materials can be seen to lie at the heart of much art history and anthropology. This story is worth recounting for its own sake. The particular, the Maya, speaks to the general and cross-cultural, which resonate in turn with Maya practice and thought. Material play is not just incidental to intellectual history. Instead, it seems central to human views of the material world.

As a fundamental problem the play of material appears with Vitruvius, in the first century B.C., describing the beginnings of buildings in wooden huts and the origins of architectural ornament in floral baskets atop roofs.[21] In 1775, Johann Wolfgang von Goethe commented in much the same way on the innate "germinating powers" that drove organic development in "architecture ... [which] carries over the qualities and appearances of one material into another; every order of columns ... imitates buildings in wood." Yet, for present purposes, the story only quickens in the nineteenth century. Tales of origin stirred a range of theories about design, ornament, and technology, leading to energetic speculations about the limits of creative inspiration. As a basic premise, regardless of researcher, humans who made things, it was supposed, tended to copy the acts of other humans. On occasion, in deliberate reaction, they snapped the chain of precedent by an act of

**39** A *sak hu'n*, "white paper" jewel: A) Str. M8-4, c. A.D. 775, alabaster, Aguateca, Guatemala; B) Burial 49, jade, Topoxte, Guatemala

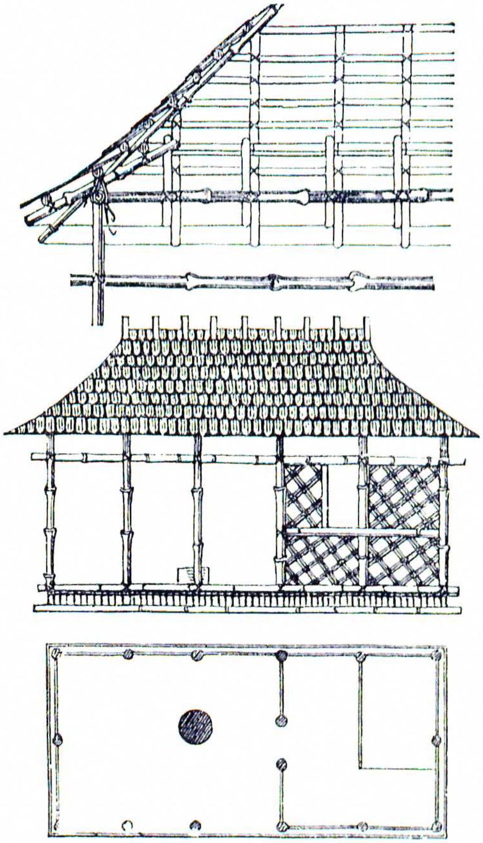


disobedience. Such looking, copying, and reacting fueled the creation of "art" itself as a mimetic yet creative task, copying nature but also deviating from or reshaping it by the addition of perceived improvements. And not only "art": tools, pots, and all manner of things followed or departed from prior forms in both unconscious and deliberate ways. The like act instigated a similar gesture; the like object served as a model or disincentive for other articles. Equally implicit in such copies or reactions were function and meaning, how things were used, what information such copies might signal. The copy, too, raised discomforting questions about displacement and replacement. Did a facsimile join or supplant an original? Could ornament as mere embellishment exist apart from function?

Such questions revealed a great deal about objects—and about the questioners too. Debate erupted among those with transcendent views of human and natural progress. German idealism of slightly earlier periods prodded and massaged the whole, yet the discussion also focused on the concrete. It required evidence. Collections of objects from remote times and places—many such holdings were created at this time—led to necessary reflections about the evolutionary conditions that induced these contrasts and resemblances. Spears, clothing, canoes, axes, effigies, and a myriad other things needed ordering and explanation, both for reasons of intelligent display and because they addressed the very nature and limits of shared humanity.

A few figures stood out in these debates, first from continental Europe: Gustav Klemm (1802–1867) and Gottfried Semper (1803–1879). Klemm, a German collector and proto-anthropologist, divided humans into passive and active races. The former tended to mental torpor and pleasure, "satisfied merely with first results"; the latter, the races that came to dominate, preferred aggression, if moderated and made acceptable by gifts of planning and foresight.[22] Klemm's theory was rescued from bigotry in one respect only. To Klemm, both sides, one female (passive), the other male (active), would eventually blend into productive harmony. They possessed the same drive to ornament the body, to expand that compulsive beautification to other surfaces and objects, including tools and buildings. In other words, the body beautiful, expressively adorned, led to repetitions and copies in other media.

In this, Klemm doubtless influenced his near contemporary, Gottfried Semper, who described design and pattern transfers from one medium to another as a slow, "unconscious" fading of prototypes, materialized in one material to be recalled later in others. For Semper, the prototype—not human flesh but a textile—became charged with high symbolism (fig. 40). It served as a protective enclosure of fabric around a primordial hearth. On later walls it appeared, not just to imitate an original covering, but to transfer in part its original purpose. To *Homo faber*, the human-as-maker, Semper attributed an intrinsic drive, a near psychological urge that yielded manufactures with unpredictable results over the long term. In this he echoed an earlier generation, especially Alexander Humboldt and Friedrich Schiller, who extolled the playful, recombinant impulses behind all human creativity. Later, reading Charles Darwin, Semper found distinctions between building and evolutionary process, the latter unconscious, "not invented . . . but develop[ed]," the former injected with "genius, will, knowledge, and power."



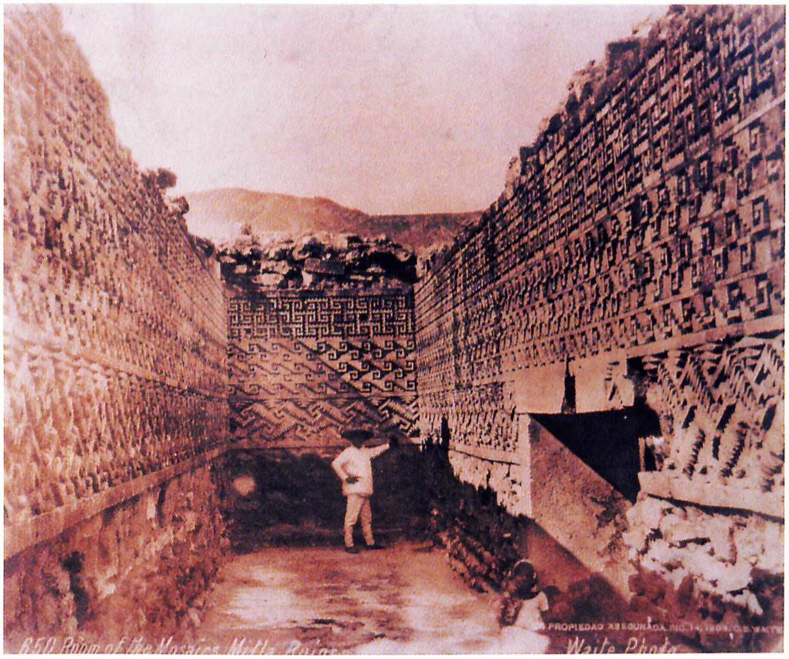
**40** Semper and wicker originals, with "Caribbean hut"

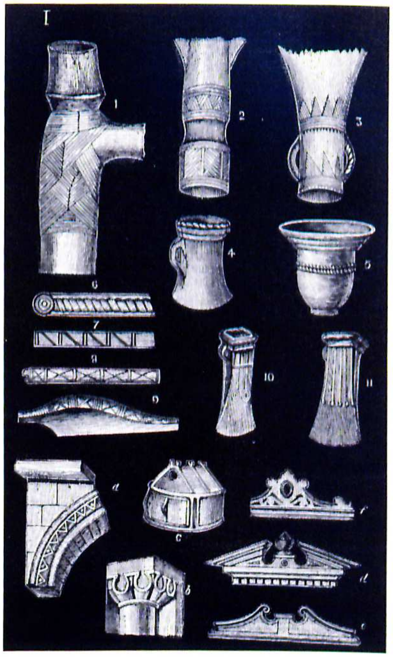
Another key figure was Augustus Lane-Fox Pitt-Rivers (1827–1900). Soldier, holder of vast property, domestic tyrant, inventor of modern archaeology, Pitt-Rivers was also an assembler of objects, organized by type and purpose—he appears to have invented the term "typology," placing strong emphasis on gradual shifts in tools over time.[23] His main influences were Darwin, whose work struck him with particular and personal force, and an extreme theory of diffusionism that traced, as with life, the propagation of artifactual forms over vast times and distances. Invention took place only once, it seems, at the beginning of a long genealogy of form. The Pitt-Rivers collections, given to Oxford University and a small regional museum, gave outward proof to what he intuited to be true. Human artifacts obeyed a "principle of continuity" and "persistence of forms" regulated by "unconscious selection." Variations in these historically connected forms—perched by explicit metaphor on a tree with "budding twigs and foliage"—arose from errors in "successive copies." Eventual results could not be foretold, only a sequence of "adhesions," each revealing a mentality or cumulative "psychology of the material arts."

The biological language was, for Pitt-Rivers, more than metaphor. Writing of weapons, but in generally applicable language, he insisted that artifact forms could be "traced back through their varieties to earlier and simpler forms, with as much certainty as the various forms of animal and vegetable life," all in the shuffling, unhurried pace of evolution.[24] Guided design and certainty of end result were as foreign to his views as God might be in discussions of nature. Design theorists in Britain, intellectual cousins of Pitt-Rivers, also embraced biological metaphor but with a teleological view that he would have disliked: they attended to "a determined uniformity of plan, a certain inevitableness in sequence of parts." For Pitt-Rivers, the expectation of gradual change, so consistent with the uniformitarian principles of contemporary geology, left an uncertain place for conscious intent. It did foreground, however, as did Semper, the subtle distortions of copying. Variation or slight changes, so necessary to Darwinist evolution, entered as an unbidden, unsought guest. At least potentially, the full linkage of form and function involved a skewed transmission, if one that might select in the long term for advantageous features.

A comparable emphasis on copying, its potentials and predicaments, figured in work by contemporaries, especially Henry Balfour (1863–1939). In reconstructing a set of stages, Balfour saw "imitation" as an early step, a direct reproduction of natural forms, to be followed by "copying," now on a firmly cultural course.[25] Copying replicated objects made by humans but could be distorted by the influence of materials, tools, and technical challenges. A companion to this discussion—and, with Balfour, a co-proponent of what might be called cultural "embryology"—is the key figure of H. Colley March (1838–1916). A surgeon who retired relatively young because of ill health, Colley March devoted his final years to archaeology and to essays on the nature of ornament. To him goes credit for introducing a term that has endured to the present, although it is more common in British than North American writing. This is "skeuomorph," a word meaning a thing that looks like one material but is, in fact, another. The etymology comes from Greek *σκεύη*, "tackle, tools, vessels, equipment, dress" + *μορφή* "form, shape." In usage, the term "skeuomorph" applies to a variety of things, to judge from nineteenth-century examples and those adduced at a later date. With few exceptions all may be subsumed under cross-media transfer.[26] The supposed prototype is of a different material than its second-order skeuomorph (fig. 41). The wooden temples of Vitruvius transmute to marble, the textiles of Postclassic Oaxaca materialize as stone mosaics at Mitla (fig. 42).

Colley March was steeped in a particular kind of Darwinism, as were many at the time, but also with evident debts to Semper. He believed that skeuomorphs arose from a distinct process of cross-media imitation.[27] Functional features, or ones intrinsic to an original material, were replaced by imitations that preserved formal or depictive traces of the original. Timber buildings, for example, might transform, by "commanding expectancy" and "mental craving," into more enduring versions in stone yet retain the minute details of wooden construction. Eventually, stylization or "ornament," which drained the copied elements of any functionality, "destroyed" the skeuomorph. All memory of its inspiration faded into "involution, degradation, or degeneration," a comment according with the ethnographer Alfred Haddon's pathological notion of art, infected by "a sort of disease that may attack the skeuomorph." Yet whipped on by cognitive need, the process could not stop: "when the mind, long accustomed to certain appearances of serial repetition, began





to look for them on other things and felt a sense of loss in their absence; when their visual equivalent, such as cross-hatching, was cut on a comb, or when chevrons were scratched on a bone needle, transfer, metamorphosis, was accomplished and Ornament was born." Aware of some New World evidence, in this case from the Pueblo of the American Southwest, Colley March reconstructed a unilateral transfer of form from a prototype (textiles) to second-order production (pottery).

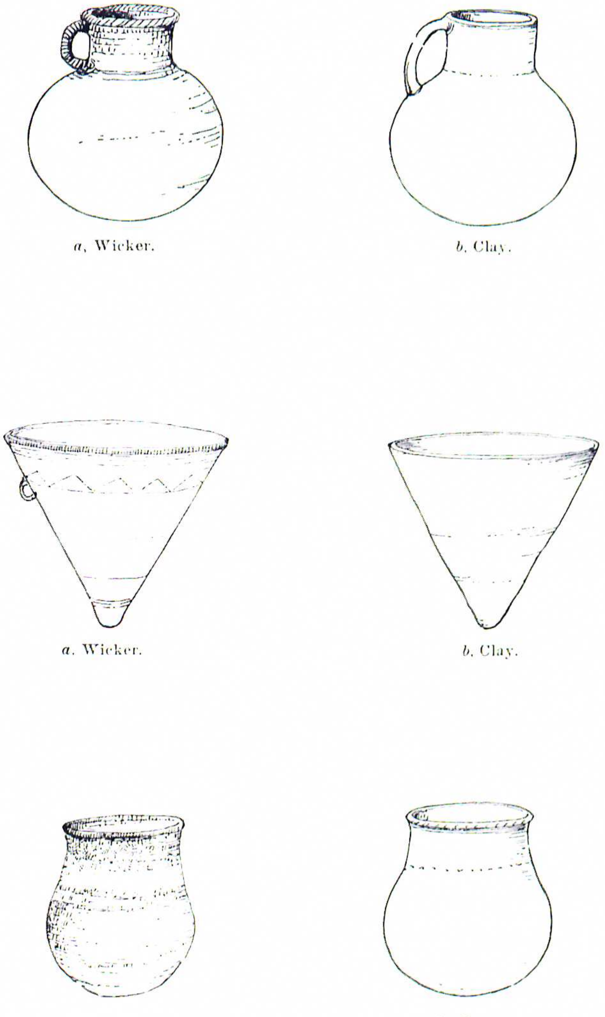
**41** Colley March and skeuomorphs influenced by binding

**42** Mosaics, Palace of the Columns, interior; Mitla, Postclassic period, Oaxaca, Mexico

The next figure, William Henry Holmes (1846–1933), probably drew on Semper yet his writing marked a divide between Old and New World debates. Thereafter, with some notable exceptions, each area took little heed of the other. Holmes, topographic artist extraordinaire and student of the "practical arts," led a distinguished career as a pioneer in North American archaeology, with forays into Mesoamerica.[28] Holmes proposed that earlier technologies, expressed in "form," would have their external details reproduced in other materials. The most malleable and plastic of materials, clay, would be used as mending for baskets or other "combustible" vessels. This process resulted in accidental copies, when earlier materials managed to impress their details on clay: "In the first stages of art, when the savage makes a weapon, he modifies or copies a weapon; when he makes a vessel, he modifies or copies a vessel." Natural forms were deliberately imitated in this manner, as were earlier objects of more "artificial" composition, attested in the morphological passage of stone/wood/horn/bark vessels/wicker to copies in clay (fig. 43). The clay in particular stalked as an "intruder"; it "usurp[ed] the place and appropriates the dress of its predecessor." But copying seldom operated without "advention," the entry of chance or obstacles to material mimicry, or "intention," changes that "enhance[d] usefulness" or responded to aesthetic, ornamental "fancy." The propellant, particularly with ornamental whims, was basic to our species, "a tendency of the human mind to elaborate because it is pleasant to do so or because pleasure is taken in the result." That pleasure originated in a human need to make the body more attractive, perhaps to attract mates, an impulse generalized by unconscious extension to objects within reach and daily use. The more elaborate designs—combinatory, increasing in complexity—came not from any antecedent technology, but from textiles and architecture that relied on angular patterns and slow building of form from varied materials.

The striking feature of Klemm to Semper, Pitt-Rivers to Colley March, and Holmes from his New World vantage was their insistence that cross-media transfers issued from gradual, unconscious urges with eventual, unintended consequences. To Klemm and Holmes, the driver was some basic compulsion, perhaps a need to mark the body and to transfer those markings to some other target. At length, the origin and functional motivation disappeared from memory. But not all was witless copying, trailing into decadent oblivion. There could be a sense of play, even wit and fun, as with Holmes, who placed greater weight on "fancy," a code word for conscious intent and indulgent pleasure. Yet all such authors stressed that the path across media flowed from shared function, prototype to novel production, and with a preponderant trend from susceptibility to decay toward more sturdy materials. A perishable house shifted to a permanent one, now of stone; a perishable basket to a permanent version, made of coiled and fired clay; an impermanent gourd, subject to rot, was replaced by one of ceramic, that most malleable thief of prototypic form and design. Strangely, the concern with transience and its stabilization marks such treatises yet sinks quite out of sight. In a few short years, Sigmund Freud himself would remark that a yearning for eternal beauty produced two possible responses, a negative state of despondency in the face of a "proneness to decay" and a positive "rebellion against the fact asserted.... Somehow or other this loveliness must be able to persist and to escape all the powers of destruction."[29]

Another issue was copying. Relevant terms, rooted in Classical philosophy, retain their uses today—"representation," "mimesis," and "simulacrum." These were probably known to all such authors, given the pedagogical emphasis on Classical sources at the time. Yet most of them focused on biological analogies rather than the meanings of mimicry. Over time, each term began to convey a range of associations.



*a*, Wicker. *b*, Clay.

*a*, Wicker. *b*, Clay.

*a*, Net. *b*, Clay.

**43** William Henry Holmes and the shift of material, from original, left column, to secondary form, right. Bottom row shows "net" to clay.

What they share, however, is a concern with distinguishing between what is real and what is shown, if by varying emphasis. "Representation" encapsulates a mental act. By some understandings, it narrows to pictorial or plastic imitation. "Mimesis" stresses the division between the real and its inauthentic copies or, in Plato's words, the "man-made dreams produced for those who are awake."[30] The "simulacrum" retools the separation of the real and unreal by making the copy "a false claimant to being." Skeuomorphists, especially Colley March and Alfred Haddon, saw such copies as inevitable to humans and as strong evidence of incremental confusion. At this time, abstraction, in the sense of schematic copies of natural forms, seemed a process of decline and degeneration. It unraveled clear depiction into incoherent remnants.

Implicit too, yet equally unremarked, was a doctrine of unilateral transfer, the apparent assumption that skeuomorphs reproduced and reshaped prototypes but seldom folded back on their source of inspiration. The wooden house did not borrow from its occasional replacement, nor did the basket resemble the pot that poached its design. The gates of Eden had closed. The primordial was not, for most commentators, a state to which one could return. With rare exceptions, the process of skeuomorphy also involved induration and stabilization, of making the form harder, more lasting, of playing with substance but surfaces, too. Further, the emphasis on the "unconscious," a term documented in eighteenth-century English but not with the incipient Freudian shadings here, nested skeuomorphy within the beginnings of modern psychology.[31] The postulate that human actions—that making things—resulted from motivations unconsidered by the actor yet unguided by God was a daring claim. It could ramify in all directions. In this, Giovanni Morelli, the early art historian, led the way. He showed that unconscious details rendered by artists left a furtive trace of their habits. This allowed Morelli to discern—or claim to discern—the authorship of unsigned paintings, in a method that later inspired John Beazley and others working with very different materials. The shared legacy must also have come from training. Like Colley March, Freud, and the psychologist William James—indeed, like Darwin himself—Morelli trained as a physician, attuned to subtle expressions of variety and the biological meaning of forms. There is little surprise that Freud read Morelli and was affected by his excavations of the human psyche.

## Schools of Skeuomorphy

Such history has its offspring: it has a second act, also worth a close look. In later work, the explanation for skeuomorphs hinges on their detection, the plausibility of such findings, and the search for motivations that brought skeuomorphs into existence: all of these play some role in understanding the Maya examples above. Plausibility rests on a simple assertion, that the supposed skeuomorph, a second-order production, reproduces the details of its prototype. Ideally, a Maya ceramic bowl should copy both the shape of a prototypic gourd and its vegetal attributes of ribbing, stem, and base. The skeuomorph of a basket, also transferred into fired clay, ought to display horizontal coils or plaiting and vertical stitches, along with the angular, stepped designs that come from the parent technology. Skeuomorphs would exist in a visual domain. Their "hapticity," their palpable feel, would change in the process of copying, their smell would be suppressed, their striations, corrugations, roughness, minute irregularities reduced to a level or smooth surface.[32]

Skeuomorphs are almost always about perceptible shifts in texture. Such comparisons become problematic, naturally, when the copy alone is known, and the prototype must be inferred from its refracted copy. Most skeuomorphs have two other tangled features, the first that cross-media transfer is usually presumed to be unidirectional, the second that transfers often mix media or juxtapose elements in notable bricolage. The copy blends attributes that were unlikely to exist in the hypothesized prototype. Buried more deeply, though present in each case and in each argument for each case, is the claim that skeuomorphs illustrate a small story of causation, that a certain model prompted a deliberately skewed copy. The copy was not slavish but touched by novelty. Because of new materials, the skeuomorph differed from its parent.

The invasion or puncturing of other media, involving distinct practices of production, is the most audacious property of the skeuomorph. It implies—yet also denies, since the eventual results are unmistakably different—the operation of separate procedures. Cutting, molding, shaping, and firing may lead to similar products, illustrating by subtle means the principle of equifinality, the chance that different paths might lead to the same end. But a binary route awaits the skeuomorph. Some objects carry the function into the new form. A clay bowl for drinking echoes a gourd with the same purpose. Others, as in the useless spokes on modern car wheels or the details of carriages on early autos—a particular aversion of the architect Le Corbusier—latch on to a form that has no functional role. As examples of Colley March's "ornament," they would ensue, to his mind, from nostalgic habit and "commanding expectancy." In this sense, skeuomorphs are memory tags that abide in the object, to be accessed by viewers. Yet, in a precarious game, the tags summon a thing that is absent. At some level, though, a functional frame lies close by. The skeuomorphic rivets, although utterly without function, still appear on jeans that cover legs and loins, the wheel spins to move a car forward, a bronze and lithic blade jabs and slashes, and the sacred building with supposed skeuomorphy continues to house a place of worship. Details differ, but the totality of purpose carries on in reimagined form.

Finding skeuomorphs is both easy and hard. It is easy if the requirement is no more than a purported resemblance between a prototype and its descendant or second-order version. It is hard if the search is for specific motivation. Local treatment by time and context needs to be front and center. To be persuasive, an example requires more than an appeal to ahistorical universalism, the claim that humans undertake actions because that is how they behave, or that humans think a certain way because that is how they think.[33] Each skeuomorph has a setting, a set of maker's intentions as well as those of the users it targets. These must be taken into account or, at the minimum, assumed to play a role. A separate and disquieting possibility is that no single motivation will suffice to account for any one skeuomorph. Convergent needs or wants may meet in a single skeuomorph. Worse, the available evidence, pre-textual, non-textual, even deeply prehistoric, tends to prevent any certainty of conclusion about original meaning and intent. In the best of circumstances, entering ancient minds is an elusive task. To a full extent, it may be an impossible one.

What can be noted, after reviewing work on skeuomorphy, is that reasons for it fall into groups. A primary one presumes a compulsion, a *mimetic urge* to copy. Close to this is a second, the proposal that, say, "this bowl is for drinking; that bowl, though of less perishable material, is also for drinking and should resemble its parent." An inevitable backwash resurges on the prototype, within a new domain of permeable boundaries and hybrid creation. Some such copies may result from *nostalgic emotion,* the pull of traditions perceived to be invariant.[34] A third explanation is both practical and conceptual. It involves a *search for permanence* by replacing objects that decompose with those that do not, by taking an unstable, perishable thing and according it a pleasing, useful, even necessary fixity. From pleasure, too, comes a fourth explanation, *ludic wit.* In such settings, an attempt to amuse, to be amused, motivates the production of an object. A sense of play would extend equally to a fifth explanation, *metaphoric and semantic marking,* in which the creation of objects or buildings fits within local linguistic or conceptual notions of resemblance and divergence. Such integrated links reflect, compose, and reaffirm an understanding of the world. A more social explanation examines *contrastive value,* weighting either the prototype or its counterpart. Most mystical is the last, that skeuomorphs embody a transfer, not just of form or design, but of essence by means of *claimed transubstantiation.* In this, philosophical anxieties about the status of originals, copies, mental images, the real and authentic, the replica and simulacrum, trundle into irrelevance. By this view, the copy, as a magical summons, cannot be separated from the original. The changed material bears witness to the miracle, marks it acutely, but the essential substance remains the same.

All theories have respectable lineages and wise partisans. The first—that humans must, by cognitive evolutionary diktat, copy and replicate, take mental images and thrust them again into the material world—is potentially the grandest theory. It is also the weakest by lack of specificity. Arising from the ways in which humans and other animals learn, it concerns the replication of prior models or the guidance of earlier memory in making a copy.[35] In a sense, there are no first actions, no first thoughts or first objects, only reiterations of them, a reflexive seeing and a doing.

Humans being humans—the tautology is inherent in such explanation—they must use their hands and apply their skill to materials that moor such mental images. Even more central is the processing of analogy, a relation of categorical binaries, thought by cognitivists to guide much human thought. Analogy establishes a set of relations and correspondences, "accessing and transferring elements from familiar categories (often referred to as the 'source' analogue) to ... construct a novel idea ('target')." From this process, the cognitive psychologists insist, in eerie echo of skeuomorphy, "new categories and schemas" might incubate, along with "dynamic constructions of ... blended representations."

In a theory of imitation, other presets may affect the prods to human compulsion. The urge to work clay, hide, wood, stone, fibers, to transform things by use of multiple media, is in the main, a distinguishing feature of humanity.[36] The more permanent the "housing" for a mental image, the more enduring its memory. The objects thus made may stem from the same urge by which humans constitute self-identity by looking at and copying others. The copying is always mimetic, however, never the same thing exactly. This is why transmission errors occur, of a sort that induce comparisons with evolutionary "drift," the crumbles of variation from which new things, advantageous things, begin to emerge. To Timothy Taylor, "much of the history of technology [is] ... an unplanned trajectory in which emergent skeuomorphic qualities often turn out to have been critical": his example par excellence, a bottle "cork" of plastic that mimics the attributes of its pithy original. The unconscious magnitude of errors, the errant imprecision of the process and resulting accelerations of change, distinguish the anatomically modern human from hominids and the honeybee. A cross-media transfer logically emphasizes the break with prototypes, suggesting that novelty is the aim, but in short hops, from the familiar to the less familiar. Nonetheless, although the mimetic urge is plausible, even likely, it looks for proof in the black box of primordial impulse. Perhaps true and valid, to be located someday in the hippocampus, the proposal skips one fact. As creatures interested in meaning, humans would also have thought locally, temporally, and socially about the significance of copying.

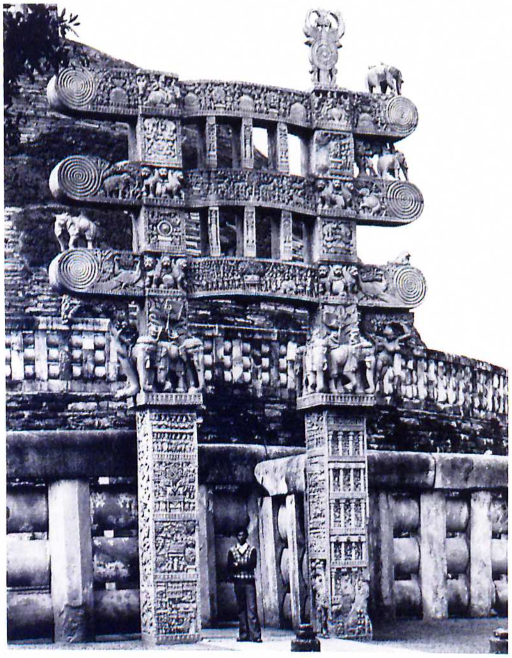
The second explanation for skeuomorphs is that they express jointly practiced technologies in tandem development. Current in Europe, this view detects the ineluctable press of muscle memory and habitual production. David Wengrow, for example, writing of ceramics from the late Neolithic in the Near East, notes the slow, technological steps in how plaster containers were molded from baskets, leading in final result to Samarran and Halafian painted vessels of the late seventh and sixth millennia B.C. These ceramics emulated the designs of basketry, which he presumed to be the dominant technology, during "an unprecedented phase of elaboration and experimental design."[37] The skeuomorphy arose from an emotional, aesthetic comfort in a preponderant craft. By sharing in admiration of that craft, people solidified "a system of social relationships between producers and consumers of aesthetic labour." The emphasis on one technology, in this case basketry, might have been primordialist in nature—a craft regarded as ancient, venerable, reassuring. Or, although the explanation is circular, it was valued because it was valued. People liked it. They esteemed its feel, tight weave, aroma, the evidence of dexterous manufacture, the cleverness by which natural fibers were enticed into new forms. The precise sentiments cannot be known, only that an aesthetic emphasis ruled the objects surviving their parents.

In its array of angular detail and design fields, the proposal is convincing. Yet doubt starts to cloud when an alternative is entertained, that the creation of cross-media transfers occurs at times of increasingly dense and large settlement in this region. More likely, comfort and social comity were less the aim than a strategy of setting apart, an assignment of distinction to this new body of material, not as the result of shared craft, but as objects that, by their enduring material and carefully executed design, marked the skeuomorphs as strikingly different.[38] Determining a "dominant" technology, or one held in particular regard, is uncertain when the copy may convey a new, social contrast. The painted vessel, perhaps, was not a pseudo-basket, mimicking its model, but a "not-basket," assertively of different material. A further probability, although it is likely to be an imponderable, is that the cross-media references hint at gendered practices that seldom receive mention. The analogy is far-distant, but, at least in historic times, certain potters in the Puebloan southwest tended to be women, men the painters: skeuomorphic productions could have been, at least hypothetically, by two genders, while the prototypes, of basketry, came from one producer only. The lasting point is that no compelling reason exists to believe that cross-media transfers involved the same artisans. The alternative, as much a default as its assumed opposite, is that they did not.

A third view of skeuomorphy, that it reflects the practical and symbolic roles of permanence, strikes with special force in the tropics but elsewhere too.[39] Seasonal rain, strong sun, the assaults of insects and fungus, regular wear and tear, all assure that objects do not last. Most skeuomorphs appear in more resistant materials. A pot may break into potsherds after a generation or so, but its near-immortal residue long outlasts any soggy or torn basket. Stone temples survive, although fractured and partly collapsed, throughout the Classical world while their wooden analogues or homologues disappeared long ago. The durability of the skeuomorph, motivated by conditions of heavy use and environmental onslaught, must have had semantic freight, too. If not a direct or primary form, it would soon become so; the salient form was the one that lasted. Spiritual meanings perhaps attached to such skeuomorphs, as in the evocations of eternal truths at the Mauryan temples of Buddhist Sanchi, wooden originals petrified into stone balustrades or armatures (fig. 44). The stone "thatching" on Classic Maya buildings at Machaquila, Guatemala, or Uxmal, Mexico, demand a comparison with more ephemeral structures nearby. Although royal in commission, they employ the same architectural idiom as the houses of non-elites, yet with an obvious permanence that no thatched hut could match. The imperishable is practical but, by its nature, contrastive and exceptional.

That ancient peoples could be amused and indulge in playful wit goes against archaeological preconception. The past is, for students and professionals alike, a *serious* business.[40] At stake here is the concept and the special frissons of trompe l'oeil. The term is relatively recent, from the early nineteenth century, but there is the prior example of the classical painter Zeuxis, whose images of grapes made birds hungry, or of his colleague, Parrhasius, who laughed last—Zeuxis tried to part an illusory curtain by Parrhasius. Deception was partly the aim but also a twin reaction: to bring a grape or curtain into the existential frame of the viewer, then, since the punch line must be told, to coax the viewer into startled recognition of error. Behind each sleight was also a then-active theory of perception, of how eyes take in and process the world. Miriam Milman lays out the rules: The replica must be life-sized and blend into surroundings; the edges should avoid any compromise of the deception; the sense of depth must be limited since slight movement by the viewer would compromise the intended effect; the technology of the copy should remain unobtrusive; live subjects, which ordinarily twitch, flutter, move, lead to rapid betrayal of the effect, and are not to be used readily. But the recognition must come and unsettling it ought to be to the thoughtful viewer, "not resolv[ing] into truth or fiction, but cast[ing] a permanent pall on both."

Whether illusionistic deception is cross-cultural, its presence intuitively and obviously visible to all, prompts at least a little doubt. The trick must be collaborative, between artist and gulled viewer. This would demand joint training in conventions and expectation. Yet skeuomorphy could well involve the ludic, play and the playful, in two senses. It could pertain to conversation pieces, the items of wit and artifice offered for comment and admiration. And, in more profound manner, it could point to a concept of juggled materials, a semantic and literal transposition by which people explored and tested their world.[41] George Hersey, discussing theories of ornament, would describe this play as tropic, relating to "a word or phrase used

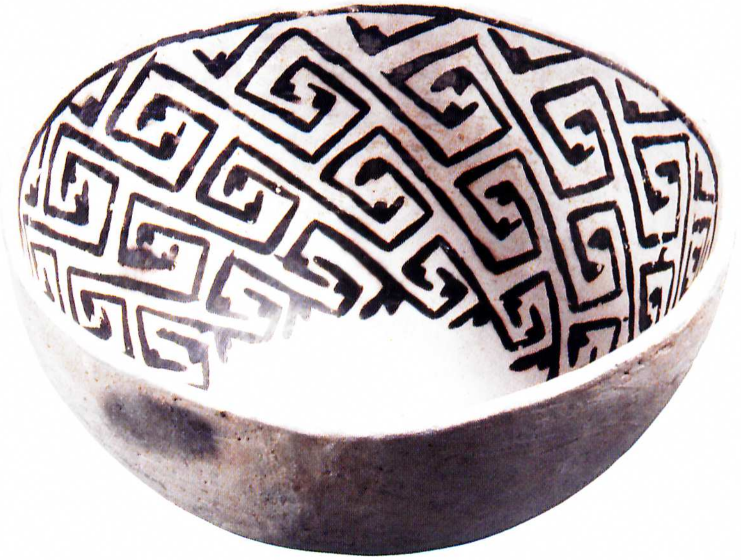


**44** Mauryan temple at Sanchi, second century B.C. (American Institute of Indian Studies, Neg. 321.64)

in a sense other than that which is proper to it . . . dwell[ing] in the words of puns, homonyms, and associations . . . playful and poetic." Most skeuomorphs, however, could not have worked well or long as examples of trompe l'oeil—the deception is too shallow, the artifice meager. Yet the fact that such objects engross and surprise cannot be discounted either. Most do obey the "life-sized rule," enforced in part by the shared function of prototype and second-order copy.

Skeuomorphy also finds an explanation in semantic domains and the organized, targeted marking of meaning. In this mode of interpretation, some cross-media productions are radically multilateral, with design transfers that inhabit, even infect, in Haddon's terms, all available surfaces. As suggested for Pre-Columbian Peru, these result not from shared involvement in allied technologies, but in a "total artefactual environment" informed by "an ethos concerning the proper look and nature of things."[42] Among the Shipibo of Amazonian Ecuador, for example, shared designs adorn bodies, ceramics, textiles, and watercraft in what has been called a "multi-mediated" manner—Klemm's voice can be faintly heard. They exemplify, in a phrase taken from the anthropologist Alfred Gell, an "axis of coherence" that builds on perceived social and substantive relations between things, surfaces, materials, and people. But the aesthetic broadcasts do not much savor of the specific transfers and cross-ties operative in most skeuomorphs. Instead, they hang in suspended state between one artifact class and another. They are not just copies but tagged and contrasted evocations.

A related account comes from Scott Ortman, building on Holmes's—and, indeed, Colley March's—note of basketry designs on Ancestral Puebloan pottery, circa A.D. 600 to 1200 or later, in the American Southwest (fig. 45).[43] For Ortman, transfers and quotations cue the rhetorical devices by which humans make meaningful comparisons. But they differ, too, going far deeper than words. Labels and phrases are just the surface of conceptual scaffolds that structure meaning and understanding. By analogical process, a "source" is spirited into close association with the "target" it explains and enfolds. This is heavy lifting, made more heavy by the solid things invested with such comparisons. The metaphor serves to organize most thought, feeling, and experience in far-ranging, structured pattern. Seldom idiosyncratic or ad hoc, it fluctuates in weight and currency, depending on social need and cultural relevance. A metaphor in wide use at any one time and place can taper in importance



**45** Textile design on Walnut Black-on-white bowl, Little Colorado White Ware, c. A.D. 1100 to 1250, Hopi Buttes, Arizona (Museum of Northern Arizona, Flagstaff, A11235)

when the metaphor loses grip, no longer taught or learned in crucial formative years. Its allure and power to explain fragment and fade. For Ortman, following George Lakoff and other linguists, the metaphors clearly pass from concrete sources to more abstract targets. They perform other work, too, in distinct ways. They facilitate general, conventionalized comparison, apply to appropriate targets, blend conceptually similar things into unlikely conjunctures, and respond to actual experience of this or that material. The metaphors may have primary features, resident in the parent model. Secondary shades of meaning then flourish as the metaphors colonize or imprint on other domains. An example: for Ortman, in the basic trope "buildings are containers," the Ancestral Puebloans impart a strong message. They transfer details of pottery onto buildings yet do not paint architectural features on pots. They blend various designs of woven origin on the surfaces of pit structures and granaries but employ such elements selectively, amending such emphases over time. This recombinant bricolage is less stylistic than in step with the very essence of metaphor.

Ortman's innovation in accounting for southwestern patterns of cross-media transfer and cross-citation is to explore the local history of usage. He discerns a select set of metaphors, noting their broad, almost transgressive reach, which extends out to embrace referent after referent, within the idioms of well-known, available technologies. Ortman does not see these as timeless explanatory structures, self-evident to all. Rather, ideas live in language and history. Implicit in his theory are two features in particular. Certain skeuomorphs confine themselves to plausible scales. A basket and a pot are relatively close in size. But then, as the metaphor replicates and grows to explain other, broader features, the scaled resemblance starts to stretch. A container is now a building, a community, the cosmos, as though twin, staged processes were in active operation. The hedged metaphor controls for size and limits the scope of metaphoric extension; the other, transcendent metaphors explode such boundaries, yet they achieve their strength by framing in the familiar and small-scale, the portable and touchable. Perhaps an everyday basket resonates with its vast or more abstract counterpart, as in William Blake's "World in a Grain of Sand . . . Infinity in the palm of your hand."[44] A second, notable feature of metaphors is, to be sure, that they liken preexisting things. But the emphasis, suitable for the land of Spider Woman, is on the making and crafting of objects, buildings, communities, and creation itself: few traditional technologies separate "spiritual or ancestral involvement in the production process . . . [or] the logic of procreation and reproduction," a subject for further reflection in Chapter 3, which looks to vitality in matter. More than descriptive explanation, the skeuomorphs communicate the work behind them, coming into existence by exemplary labor and patterning on mythic models.

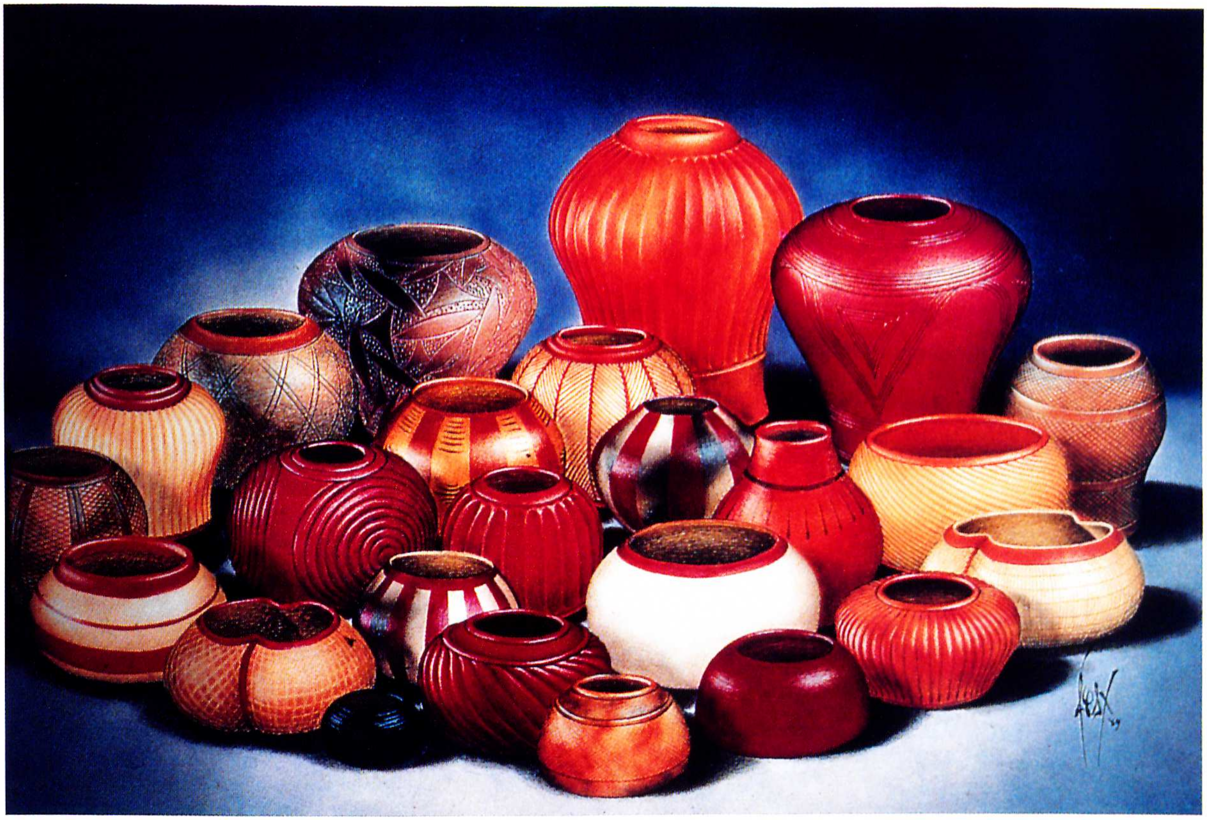
Ortman emphasizes the sheer familiarity of these tropes as they propagate in people's minds. The metaphors make sense to those who weave and use weavings, to those who pot and use pots. An additional shading might be to understand them, too, as disjunctive examples—in linguistic jargon, they "mark" or set apart.[45] A pot covered with basketry designs does not fool many people, at least not for long. The new creation, the marked version, is, in fact, unlike its unmarked original. Invasive by nature, spreading beyond its original substance, the skeuomorph establishes resemblances but also demarcates points of difference. As a concept, "marking" suggests that certain skeuomorphs neither replaced nor copied an original. Instead, they stood in overriding contrast to their parents, functioning not just as oppositions to that which came before, but as asymmetries. The marked example is usually "the more focused, the more narrowly constrained, the more concentrated than the other." Moreover, as with linguistic marking, a basket could form the generic category. At the same time, it could typify the *opposite* by means of its marked counterpart, a pot, say, embellished with basket designs.

The features of marking recall the play of metaphor. The marked object does not possess all features of the unmarked, which may be more varied; indeed, it enhances that original with added features.[46] The unmarked, the more frequent category, may also stand for the category as a whole. Thus, in Ortman's evidence, a basket may be the overarching class that encompasses a distinct marked form, the "basket-as-container." To some, this appeal to Prague-school semantics—where such concepts of "marking" were most clearly articulated—is fancy packaging for what should be called "salient" or exceptional, although this criticism fails to acknowledge the binary nature of the examples in question: there are varying degrees of salience or distinction but marking is either present or absent. Historically, too, the application to non- or extra-linguistic phenomena transports the concept well beyond the setting where it was formulated. This may be unacceptable, sloppy. Or, possibly, at some profound level, marking expresses the neural patterning described by Lakoff. Crucially, that too expresses itself as paired resemblances and asymmetrical contrasts. The "pot-as-basket" is like a basket but, patently, a very special edition of one; a stone building is a marked example of one in wood, a transmutation used equally to study elements of traditional buildings in Africa. This contrast persists, declares itself in the long term, because it will endure more readily than its fragile counterpart.

If marking or "salience" is the aim, it would presumably exist for a reason. There should be some motivation for the new and contrastive forms. In Mesoamerica and elsewhere, the claim is, as one example, that the first pottery emerged from shapes that imitated gourds, an argument similar to the gradualistic primordialism posited in explanations of Old World skeuomorphy.[47] It is probably no coincidence that, on current evidence, the suggestion is well grounded. In Mesoamerica, the shapes of early pottery resemble closely the dried gourds used to hold liquid or, to put it more precisely, they resemble the gourds employed routinely for that purpose in later contexts, from Pre-Columbian, colonial, and ethnographic evidence. As such, they accord with a range of explanations for such skeuomorphy: the human compulsion to copy, a steadfast practical and symbolic concern with durability, a familiarity with a dominant technology that seeped into another, the witty play of material with trompe l'oeil effects, an example of structured metaphors, and the process of marking, which cleaves the quotidian from the exceptional. The clear if unstated theme is that all could apply, all could operate simultaneously. But, at the same time, the skeuomorphs must materialize because communities and the craftsman that supplied them wished this to happen.

Here, an inescapable issue is value. The source could be seen as more coveted, to be replicated in things that mimic an esteemed original; or, by contrast, the source could be perceived as less valuable, and the skeuomorph becomes a marked class. In either case, an asymmetry takes charge. Examples of the first occur in the controversial if stimulating suggestion by Michael Vickers that Greek pots, so treasured by collectors past and present, were less valued versions of metal originals.[48] A similar case has been made for some Chinese porcelain as copies of metalwork, reflecting a greater valuation for silver prototypes yet also a stimulus in design that led to innovation in ceramic technologies. Even earlier jades in China "imitated stone and pottery objects but were not intended to be the same"; they were, in the words of Ellen Dissanayake, to "make things special," a vigorous goad to creativity. Examples of the second—a skeuomorph accorded greater worth and social salience—may explain the first, often flamboyant pottery of coastal Guatemala and Chiapas, made in the second quarter of the second millennium B.C. (fig. 46). Rather than copies, these may have served as socially marked contrasts with everyday receptacles of perishable materials. The reason: they did service in community feasts, thereby offering an altogether finer service than everyday vessels of gourd or wooden origin. In both cases, a positive value for the prototype or an enhanced worth for the skeuomorph, the novel forms arose at times of flux, if of varying sorts. In the case of early Guatemala, new convivialities at the community level may have driven innovation and acceptance more than the supposed merits of fired clay. The triggering of skeuomorphy at moments of change recalls an argument for the new objects, an "innovative materiality," said to characterize the tumult of the Pueblo Revolt of 1680 in the American Southwest. The gradualism of the nineteenth century reverses its course: in some examples, skeuomorphs may have less to do with constant process than with ruptures and accelerations in the societies that made them. Not "adventitious," in Holmes's words, but special, needed, selective, deliberate.

If skeuomorphs are about marked states, old forms in new materials, new forms in old materials, objects and buildings that echo less enduring forms, then the final explanation deserves emphasis: that of transformation and transubstantiation. The latter term has particular resonance in Christian theology, concerning the often violent debates about the presence of Christ's body and blood in Eucharistic sacrament.[49] That emphasis is not intended here. What does relate to skeuomorphy is the repeal of what has been described as "methodological atheism," the analytical view that prior beliefs about supernatural process can be taken as false. Nonetheless, copying cannot be discounted, in the minds of its makers, as a magical process, the craftsman elevating to the role of, in the words of Alfred Gell, an "occult technician." To invert Renaissance notions of the visual arts: they involve creation, not imitation, they trend toward reality, not fiction. The novel form may again resonate with unconscious compulsions among humans, a mimetic urge to copy, an overt intent to play, to have fun, to set apart and assign or negotiate value, an absorption in guiding metaphors. But in few cases can it be supposed that the original was, in ancient minds, categorically, substantively different from its skeuomorph. For Jeroen Stumpel, writing of ritualized objects of skeuomorphic



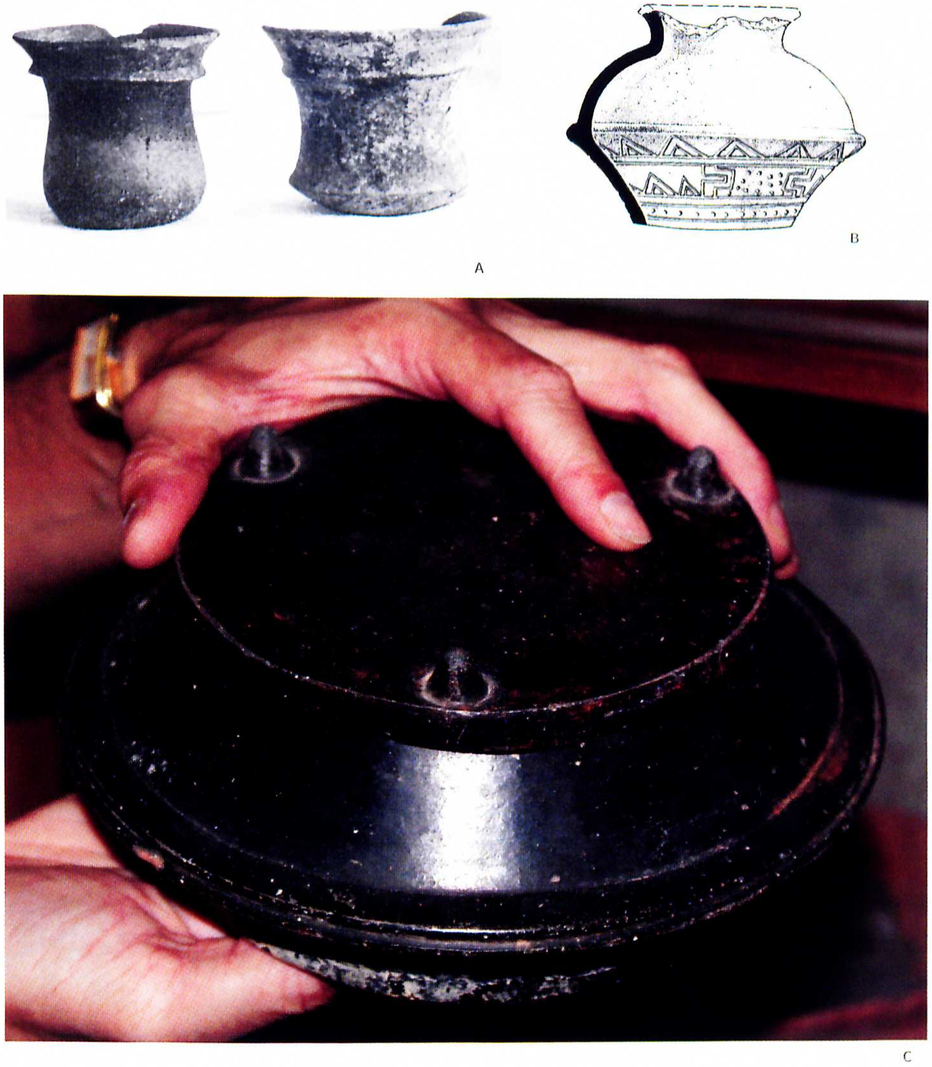
**46** Barra-phase pottery, Paso de la Amada, 1900–1700 B.C., Chiapas, Mexico

type, such changes mark inherently a category of sacred object, a point seconded by George Hersey, who sees in Greek ornament the petrified tokens of temple sacrifice. The intent of the makers might have seen it as salient, marked, but also as sharing in the essence of its model. The Classic Maya yield ample reason to suspect this, in that representations were understood to form the "body," *baah*, of the person they copied, with the vitalities that preoccupy Chapter 3. Imperishable, so unlike flesh, these images nonetheless shared, from available evidence, in the personal identity of the people they depicted. These were kingly conceits in the main, but they open the chance that small things too, a bowl or a knife, might magically capture part of their original.

## The Play of Maya Matter

A considered review of explanations for skeuomorphy leads to the inevitable conclusion that many motivations might exist. Some, even most, were likely to have been concurrent. The history of thought about skeuomorphs—even before they were labeled as such—unveils much about the periods of their conception. In import and influence, the stories and thoughts are far wider than the evidence itself. Recognition of cross-media transfer awakened speculations about origins and, in the perception of gradual change, raised the possibility of unconscious urges that hinted at little to no supervision from divine will. There was also, to judge from more recent research about the brain, a basic rooting of skeuomorphy in the fundaments of neurology and cognition, in how humans are driven to devise binaries, relations, and asymmetries of linked meaning. These researches may only grow more in persuasive force. From them may come a reason for blending and bricolage. But, for now, the particulars are just as pressing. Any explanation that is not local to a time and place, with motivated producers and users, patterned by selective elaborations of skeuomorphy, will ring false, as will any explanation for skeuomorphy that finds scant distinction between preindustrial and industrial production. The bogus corks of Tim Taylor or the carriage frames that incensed Le Corbusier are arguably of their time and productive place, less about universal nostalgia than memories of the modern age. By another argument, they express an angst about change, an unease over swings from the hand-made to the artifacts of robotic impersonality. The episodic patterns of skeuormorphic acceleration indicate more decisive deliberations, not unconscious impulse. It would be far-fetched if a viewer did not know that a cylindrical vessel was of clay rather than textile, a ceramic bowl of skinned armadillo. Whatever the tricks to the eye, they had altered tactile qualities, a banished scent, a changed presence.

What fascinates about the Maya, as with all ancient peoples, is not that they copied but that they did so thoughtfully and selectively, by editorial winnowing of an original stimulus into forms shaped by convention. The schools of skeuomorphy offer useful frameworks, each deserving considered review. The claim for primordial urges, ensconced in unapproachable synapses and cognitive strongboxes, can be set aside for want of direct evidence. Its distaste, too, for local history and process makes it majestic but ineffectual, telling too little about too much, a monologue in monotones. For its part, the suggestion for dominant or coveted technologies, perhaps shared by practitioners—the Classic Maya made many baskets, many weavings, thus having an impact on more malleable, moldable, clay—leaves little cogent account of why certain transfers took place, at certain locations, in this case during two centuries in the Classic Maya heartland. The complexity of craft organization among the Maya was predicated more on the separation of skills, including the likelihood of elite production, than of shared craft. Permanence and musings about transience seem more compelling, however. A pot that endures is



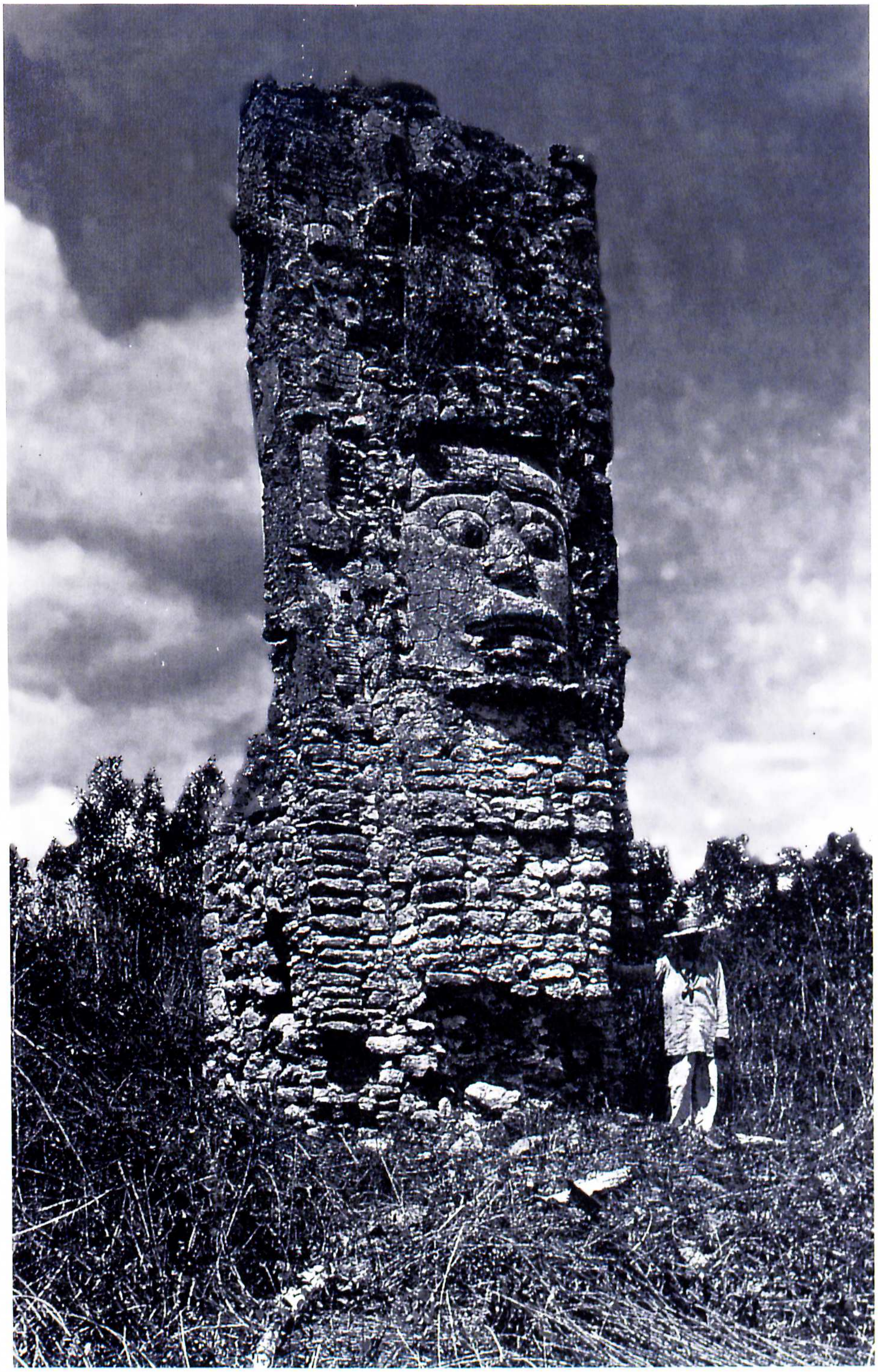
**47** Pottery composites: A) Holmul, c. 100 B.C., Belize; B) Uaxactun, c. A.D. 500?, Guatemala; C) Santa Rita Corozal, c. A.D. 500?, Belize (Institute of Archaeology, Belmopan, Belize, 35.203.2:128)

better than a basket that rots.[50] A mostly lost world of gorgeous textiles, cut and polished wood, a basket coiled with expert control, maddens the viewer who sees such things in painting or sculpture. Such wonders are quite gone, preserved only by wild exception. Yet *when* such quotations occur cannot be explained by general appeal to tropical wear and tear.

Play, though, is there, always. The Classic Maya were serious about being unserious. Sheer delight must have attended, for example, a set of "composite" pots from Uaxactun, Guatemala, and Santa Rita, Belize.[51] They show what appear at first to be stacked or inverted pots of different shape (fig. 47). The ceramic from Uaxactun compels in particular because it embodies the full sum of food and drink, an *olla* or water vessel with constricted neck inside a serving dish for stews or tamales. The meal is gone, presumably, but, as an inside joke, they fool with a single pot, suitable for serving a liquid. The Santa Rita example inverts the dishes. This recalls the caching pattern of lip-to-lip vessels but also, one suspects, a need to keep the contents warm and fly-free. Again, there is material wit. The "bottom" of one plate lifts to reveal the unitary construction of the whole. Added fun may have come from those vessels that reduce absurdly in size, as miniature versions of the usual, larger ones, just as Classic Maya dwarves clearly contrasted with the royalty and courtiers who possessed them. But the largest such copies are the palaces of the Río Bec region of Campeche, at sites like Xpuhil. The massed pyramids of a more southerly city, in the Maya heartland, fuse with palace building, their stairways so steep and narrow as to be impossible to climb. In one conjoined building, the Maya created a civic center, with building usually left distinct; the eye would separate its elements and identify them as the individual structures they are not. In much the same way, Maya masons slightly to the north, in Nocuchich, Campeche, Mexico, crafted a Late Classic "monolith" out of multiple blocks, all stuccoed over into a reasonable facsimile of a Maya stela (fig. 48). At some point the monument became precarious, leaning backward. Masons fitted more masonry at the back to prevent its total collapse.

To a noteworthy degree, Maya notions of "amusement," as expressed in colonial sources from close to the Spanish Conquest, relate to the act of seeing (Yukatek *cha'an*) but also to "play" or "romp" (Yukatek *baxal* or the Ch'orti' root *as*, "play, banter") and to a kind of deception or drollery associated, at times, with exuberant and daring monkeys (Colonial Tzotzil *lo'* and *maxil*, also Colonial Poqom *koyom*).[52] Such creatures, particularly the Howler monkey, have long been associated with ancient Maya craft. It seems unlikely that cross-media transfers would not amuse. The same sources suggest that "copying" or "imitation" is about learning, as *chanbey* from Colonial Tzotzil, or *boch*, a "moving" even a "cleaning" in Colonial Yukatek, *tol*, an "imitation" or "following" in Ch'olti' of the same era, or *ehtz'*, a "study" and "observation" in its descendant language of Ch'orti'. Play, perhaps, but also some deference to precedent.

Scott Ortman's metaphors ring true, too, if in ways different from the American Southwest. For cross-media work, the effects of scale mattered for the Maya. A basket was not mapped on walls, nor, on present evidence, did it embrace a broader concept of community. It was riddled with corporeal metaphors, as in the mapping of human body parts on a larger whole, a building, or the reciprocal of structuring



**48** "Stela" at Nocuchich,
Campeche, Yucatan, 1889,
c. 6 × 2.5 × 2.5 m (20 × 8 × 8 ft.)

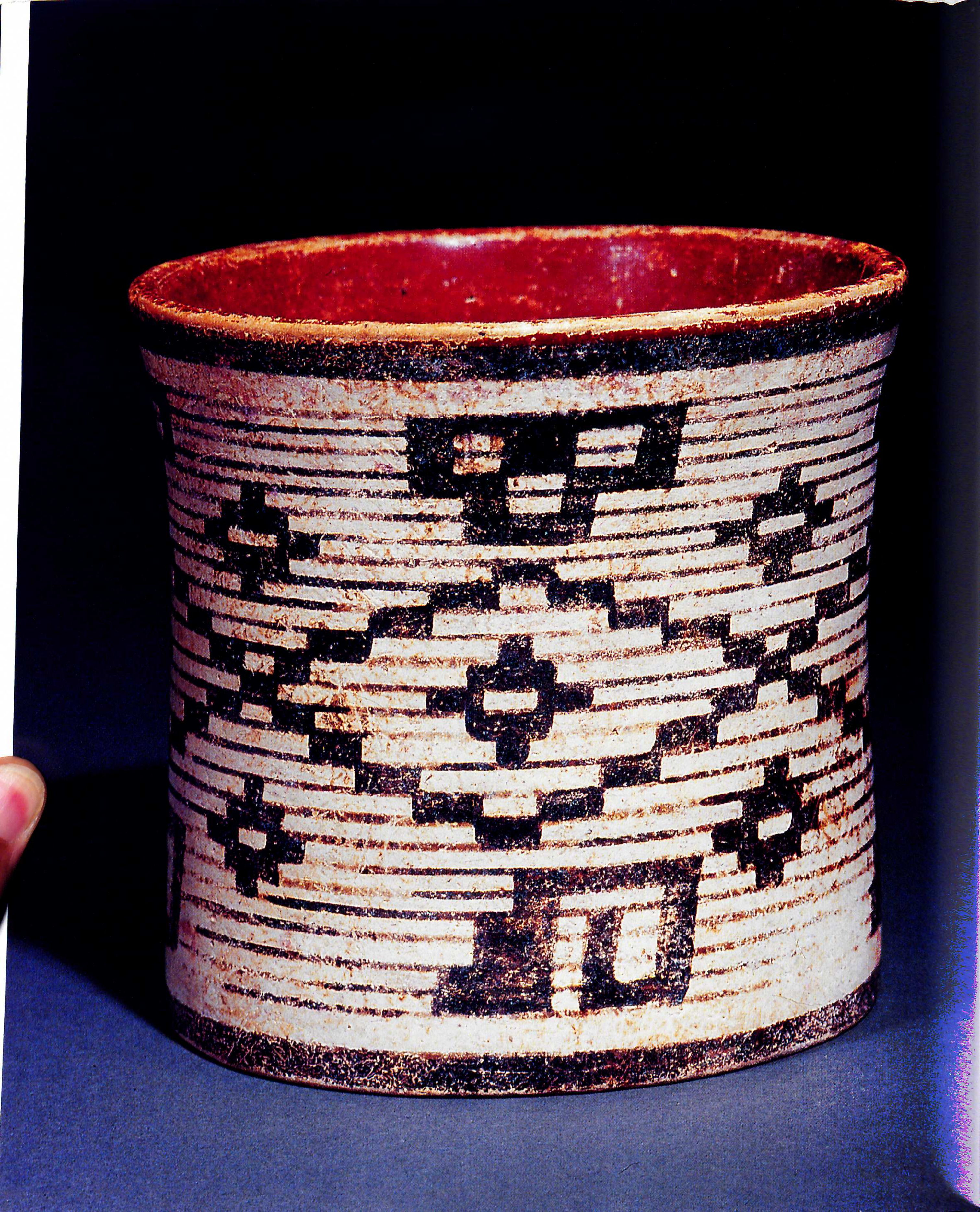
of a plate as a dwelling, that the Classic Maya departed from scale.[53] To striking degree, however, the bricolage and cross-patterning noted for the Southwest infuse the surfaces of Maya skeuomorphs. The stacking, the conjoining of basketry with textile and edge markings of pelt and leather, fit well with the recombinant surfaces described by Ortman. For the Classic Maya, this involved, probably, its own metaphors. A vase like a body, belted tight with valuable material, but a vase or bowl that also highlighted, even refined, the essence of another craft.

What can be asserted, emphatically, is that the novelties thus made—hybrid forms that exist in relation to, but apart from, their sources—were marked or set apart. Some expressed a desire for cherished materials. All were something different. If these ceramics were for elite use (not, to be sure, a proven assumption), the pattern would accord amply with a process by which royalty and nobles appropriated the commonplace for marked usage. The main expression of royal agency likens it to a manuring or preparation of fields, like so much peasant labor but distinguished thoroughly from its inspiration. The capture of captives in war, *chuk*, drew on a term for seizing game, and *ch'am*, a word to describe the reception of royal regalia, was the same as that for harvesting maize.[54] In their inception and widest use, all such expressions coincided with the period of clearest cross-media transfer. Elites and their things were like those of non-elites, but unlike them too. Baskets and gourds offered hospitality, but of an enduring sort, as lasting tokens of elite generosity.

Since the craftsmen were not modern makers of plastic corks or spoked wheels, they may well have had singular, culturally rooted notions of what, precisely, had happened in the act of cross-media transfer. Maya imagery of more exalted category, royal portraits, deal in not just appearances, but substance. This is made clear by images in stone that shared, by glyphic comment, in the core essence of the depicted. These guaranteed permanence but also, by magical ability, injected a shared vitality into the depiction. The play of materials during the end of the Early Classic period, at the beginning of the Late Classic and a century or two beyond, occurred at a time when such ideas dominated royal courts. Our gaze today cannot discount the possibility that a *substantive* transfer accompanied a transfer of form or design. An overriding concept, attested later but also in crucial sources from the Classic period, is *k'ex*, a notion of cyclic replacement.[55] Truly new things may not exist; their essence could be transshipped, however. An idea rooted in the potentials, duties, and ultimate possibilities of humans could apply to other materials, too.

That many skeuomorphic explanations may apply to Maya play of materials—mimetic urges, concerns with transience, ludic wit, metaphoric envelopment, substantive transfer, lateral associations of value—leaves a large question: why in this way, at this time? Some of the shapes of gourd and squash doubtless expressed a pervasive form, and were more broadly distributed. Their status as primordial *ur*-pots is more dubious, as the Classic Maya would not have preserved such an understanding. No interviews with potters and painters are available, naturally. But the setting, in which royal courts of the zone began to flourish in craft zones of aesthetic competition and refinement, must house part of the explanation. The inventories of elites needed distinction from non-elites; non-elites might resist such exclusivity. The public, the consumers, were cultivated, they craved entertainment, they discriminated. Within bounds, they coveted. There were many more Maya than before, pressures of martial and civil sorts encroached. Perhaps, although the thought is unprovable, they arose at a time when other conversations about representation were taking place, including spatial experiments and a new attention to observed yet conventionalized detail in the world around them.[56] An enriched surface could float and transfer, in such promising nurture, from grass, vine, bark, cloth, pelt, hide, and wood to hopeful, hybrid permanence in clay. But the process did not apply to all producers or all materials. Fun and serious, the game would run its course, leaving reminders of lost things. Walter Benjamin, writing of mimesis, has the last word:

> The highest capacity for producing similarities, however, is man's. His gift of seeing resemblances is nothing other than a rudiment of the powerful compulsion in former times to become and behave like something else.[57]



# 3

# The Life Within

> In all these cases, the talking thing spoke the truth, the purest, most indubitable truth conceivable. —Lorraine Daston, "Speechless"

THE TREASURY OF Maya ethnography comes from a hundred or more researchers, living and talking with native peoples, often over decades.[1] What the sources offer: testimony that things, places, and materials might live. What they reject: the boxing of belief into a single set of ideas or practices, unyielding to time and circumstance. The concepts are too varied for that. Yet, past and present, Maya communities do participate in a shared frame of reference about living things. They endorse the claim that things might talk, entreat, assail, dissent, hunger, thirst, and assist.

The challenge is to disentangle general principles from local expressions, and to find an underlying system that gives elbow room for invention. The more distant goal, achievable from fresh evidence, is to observe the origins of that system, and the origins of those origins, in a period over a millennium ago. As asserted here, the Classic Maya believed that animate matter and things might associate with humans. Energized by spirits and energies, stones had the capacity to see, smell, consume, vocalize, and breathe. In some cases, a god or set of gods lived within their stony frames. Sensitive to this vitality, humans took charge and forced these substances to obey. People are frail, but the lesson, it seems, is they are neither helpless nor completely mortal. Yet the supposition of animacy is less useful than knowing what constituted such vitality and who sought to control it. A final form of animation concerns writing. Articulate speech, the most ephemeral of human artifacts, achieves permanence in Maya glyphs, which began also to animate in certain settings. The ultimate question is how these perceptions of life touch on human relations to the world.

Basket Design on vase, c. A.D. 700, ceramic, Guatemala

## The Vitality Within

Scholarship on animacy has a problem. It sees both logic and confusion in the imputation of vitality to things. The logic is often framed in evolutionary, rationalist, or developmental terms—that is, ideas evolve, can be understood by others or match the stages of human maturation. With study, premises and conclusions can be reconstructed about how people think. But, to most analysts, the perception that things might live is still wrong. Rocks do not live nor do gods inhabit clouds. To one side of this debate are other participants. Some focus on "entanglements" between humans and things.[2] For them, the perception of vital energy is irrelevant, as is the distinction between matter and the things made of it. A second set appears to pitch a local understanding, usually from the Amazon or boreal climes, as a more general theory of relations between humans and animals. Groups such as the Shuar of Ecuador or the Sámi of northern Scandinavia are pressed into service as explanatory models for universal thought. Yet, much like a type-fossil, they raise a disturbing question: can the Shuar or Sámi ever be truly removed from the abstract theory they are said to exemplify? For those concerned about the future, there are also moral lessons to learn. Fostering virtue, a sensitivity to other things and beings helps to sharpen our duty to a fragile planet.

To a genealogy of such logic: among the first in the family tree is the philosopher David Hume.[3] For Hume, the origins of belief result from transference: "There is an universal tendency amongst mankind to conceive all beings like themselves, and to transfer to every object those qualities with which they are familiarly acquainted . . . trees, mountains, and streams are personified, and the inanimate parts of nature acquire sentiment and passion." From such claims come the speculations of Stewart Guthrie, who finds reason enough to account for animation (the ascription of life to the nonliving) and anthropomorphization (the search for human attributes in the non-human). Quite simply, humans seek agents and subjects like themselves. They explain other forces, some threatening, by scanning for a shared frame of reference. That frame consists of human traits and human proclivities. People do not observe a rock moving but can imagine it doing so, shuddering and shifting along, its thoughts interpretable.

To Edward Tylor, a century or more after Hume, these notions sprouted from an "infant philosophy of mankind," a suggestion that, indeed, infantilizes the once and present subjects of empire.[4] (In fairness, Tylor saw "animism," a kind of spiritualism, as a mostly misguided rationalism, "an attempt to create science [when humans] had accidentally created religions instead.") Tylor again: "Everyone who has seen visions while light-headed in fever, everyone who has ever dreamt a dream, has seen the phantoms of objects as well as persons." Like children, held by Jean Piaget to anthropomorphize the immediate world, humans would grow up at some point, leaving confusions behind. Or, to others, the impulse to humanize the inhuman is an inescapable part of cognition. It recurs because of "psychological determinants," including the comforting attraction of ready knowledge, the necessity of meeting threat and seeking advantage, and the pull of social affiliation. More than primal longing, these determinants arise from a positive motivation "to feel efficacious in one's environment, or to increase a sense of social connection." Fetishism, the belief in objects of aggressive and cancellable power, has its own vast arena of discussion, from Karl Marx to Sigmund Freud and beyond. For those who use the term, "fetish" conveys a certain distaste, a principled judgment of false things or, alternatively, an embrace of the forbidden, variant, or deviant. The fetish attracts or repels, a specific thing for specific longing, an enticement, a whiff of the exotic, savage, and dangerous. Does it work for the Classic Maya? No: the word is too vested with European anxieties, too vague to explain any system of matter and spirit.

If anthropological research has anything to say about animism it is that a general rubric—the term itself—explains little. Of greater interest is how such energies work. In his influential volume on art and agency, Alfred Gell avoids any biological description of these forces, preferring to describe them, in their material shape of "stocks and stones," as things that feel, think, self-regard, and, ultimately, plan on the basis of those mental operations.[5] For Gell, there is a crucial step beyond, in which "there should be actual human persons/agents" around these "inert objects." Animacy activates because people are nearby to establish a relation with an object or animal. Yet, writing about Ojibwa belief and practice in Canada, Irving Hallowell was there long before Gell, although, in a bibliographical lapse, Gell overlooks him. For Hallowell, a pioneer in psychological anthropology, the key is a similarity between "human beings" and an "other than human person." Hallowell, to an Ojibwa elder: "Are *all* the stones we see about us alive?" After long reflection, a reply: "No! But *some* are." Such spirits do not need to look like humans. They do not personify. But they must "understand what is being said to them and have volitional capacities as well." There are humans of low voltage, with powers comparable to a mole's. The skill, very much human, is to harness larger energies to augment one's own. The task goes on, never ceasing. And, as an end product, knowledge matters less than the process of knowing.

Philippe Descola, writing about "animism," places heavy weight on "human dispositions and social attributes." But neither of these applies with ease to Maya evidence. Stony energies are scarcely human—they have their own natures. The ritual invocations seem "social" only in the sense of involving, in Hallowell's words, an "other than human person."[6] Those working on animism—the topic flourished in particular during the 1990s—seem largely uninterested in things or matter. The "objects" are nearly all philosophical, the complement to "subjects"; they are not material in any non-human, non-zoomorphic sense. An acknowledged authority on animism, Descola refers solely to animals and plants, a bit to houses, whose vitality is understood as a "homology," a secondary expression modeled on other "organic processes." The oversight mystifies. It may distort. Does the neglect result from selective ethnography or the regional emphases in Amazonia? From scholarly inattention to material culture? Hallowell found an interpretive space for the lowly rock near Ojibwa settlements. For his part, the anthropologist Tim Ingold distinguishes between societies that perceive generative powers in beings on the land ("animic") and those finding them in the land itself ("totemic"). For "animic" societies—to Ingold, a general class it seems—life in one area draws down energy in another. No such reports come from Maya evidence, which pushes and concentrates energy in all manner of ways. Nor do the Classic Maya possess any discernible calculation of zero-sum spirit. There are no limits to the limitless.

## Energy and Matter

Energies agitate the Maya universe. The most potent of all, life itself, goes by several names, but the most common and ancient is *kux*.[7] Yukatek Maya use it to describe prudence and judgment but also, in a revealing entry from the early Colonial period, as part of a phrase, *biuir el hombre, animales, y plantas y piedras*, "to live, man, animals and plants and *stones*"—the last word deserves particular emphasis. Or special things may live: *refrescar o abiuar el retablo*, "to refresh and vivify the altarpiece." Among the Tzotzil of Chiapas, Mexico, an indestructible if recyclable spirit essence known as *ch'ulel* gathers in humans and in "domesticated animals and plants, salt, houses and household fires, crosses, the saints, musical instruments, maize, and all the other deities in the pantheon." Bodies can stand and move without *ch'ulel*, but this is a diseased state, an unsustainable depletion of essence. Presumably, too, the loss of *ch'ulel* in things, by breakage and wear, implies a similar disabling. To the Tzotzil, the departure of this spirit is non-random. Linked to time and destiny, *ch'ulel* cycles away to different homes, some subterranean or celestial. Illness comes when *ch'ulel*, dislodged by "fright," roams or flies off the body. But then the spirit returns, in an ebb and flow that enlivens the Tzotzil cosmos.

The diversity of forces—variably named, divisible, and multiplied—derails any attempt at summary.[8] One village, one villager, might have a slightly different take than others, or the spirits so-named could prove so radically different as to make commonalities hard to find. Yet, broadly, such energies lie within human grasp, controllable by "magic and prayer." For the Tzotzil, musical instruments need coaxing with liquor, yarn longs for a "snack" of beans and maize before being threaded in the loom. A second general point is that forces embedded in things or vegetation exist sociably with humans. For good or bad, they show independent resolve, yet, with persuasion, bow to human will. An intense projection of anger, even if unplanned, destroys a useful tool; proper tending will invite it to cooperate. For the Q'eqchi' of Guatemala, thoughts differ as to the intention and nature of these surging, animating energies. The souls or "shadows" of humans contrast with the benign, god-like, "hot" spirits of cultivated plants, sacred objects like crosses and candles, or the malevolent souls of "profane objects," houses, brooms, musical instruments, bridges, and sewing machines. These everyday things must be "fed" to calm an innate hostility. "Seeing" through rounded and polished stones, the specialist collects and transmits knowledge about how to control such things. But more than knowing, there are acts of doing and making. Among the Yukatek Maya, for example, ritual practitioners called *hmèen*, "doer," or *hk'iìnil wiínik*, "sun person," summon forces to enter wooden altars.[9] They "lower" the spirits from high places, offering "food" and appropriate receptacles for their essence. "Binding" them in material form, they protect the practitioner from such risky company and confer rain and good crops. In such ritual, too, spirits do not descend to any old place. They slip back to customary haunts.

The objects and places where spirits exist are further invested with a joint role, as temporary dwellings for energies and as channels through which intercessions are sought.[10] That many of these focal points are saturated with colonial Christianity casts doubt on such practices as unchanged survivals, yet beliefs among the *hmèen* are instructive nevertheless. Crosses in ceremonies, barely modified from "natural cruciforms," come from trees in the forest. One *hmèen* observed that, on death, he would transform into jungle vegetation. Among the Tzotzil, the stuff of this magic has separate if supervised wills, giving new meaning to the notion of a "built environment": "Long ago they didn't carry the poles or stones, They came by themselves, They worked by themselves ... They did it; they did it, They just said the command, 'You enter here'; If the stones heard, they knew how to get up, They knew how to build by themselves, and the trees too." The passage of materials did not shift just a little. It traversed areas of undomesticated nature, the hills, forests, areas outside settlement, and the lands of foreign people. Then it communed with local humans. In this and other accounts are principles of give-and-take, debt and reciprocity. There are paired opposites that somehow balance and complete, along with thresholds of human control that create the conditions for enlivened things. Raw materials seldom come from the immediate vicinity of a community. They arrive instead from untamed zones requiring hard bargains with the spirits in charge.

The K'iche' account in the *Popol Vuh* shows that relations with things can be hazardous. Anger churns, along with an unforgiving appetite for vengeance. An earlier creation of sentient beings was made of wood and reed. But things rebelled against them. Maize grinders mashed the bones of the proto-humans, domestic animals shredded their stringy flesh, hearthstones flattened their bodies, and griddles and pots burned their faces. This happened because the people of wood showed no "understanding."[11] Ineptitude killed them: they had failed to grasp the obligations of coexistence with the material world.

In such accounts, the society of humans goes beyond its more usual definition to include other kinds of "person." To anthropologists, a "person" comprises an array of attributes, roles, duties, and relations. In Maya evidence, some persons gather in a single body, others spread out, to pool in separate things and beings.[12] For the K'iche' of the colonial period—indeed, for many ethnographic Maya—objects, places, materials, conform to a sense of "personhood." As "persons" do, they relate to other such beings, human or inhuman. The ritualist finds where such persons exist and attaches or detaches them from particular bodies or objects. But there is asymmetry to the magic. Objects and places enjoy powers, including those that exceed human ability. They frighten and imperil, at times they help. It is human skill, however, organized into steps, that yokes and guides these errant energies. This is not done in silence or by gesture alone: poetic language fortifies the effect. The other point is the inconstant if concentrated hold of energies on the material world. Coming, going, staying put for a while, they live in rock, wood, clay, and stone. They are knitted to matter by magical practices or their own capricious whim. Later, they leave on their own or, if the right spells are known, humans keep or expel them.

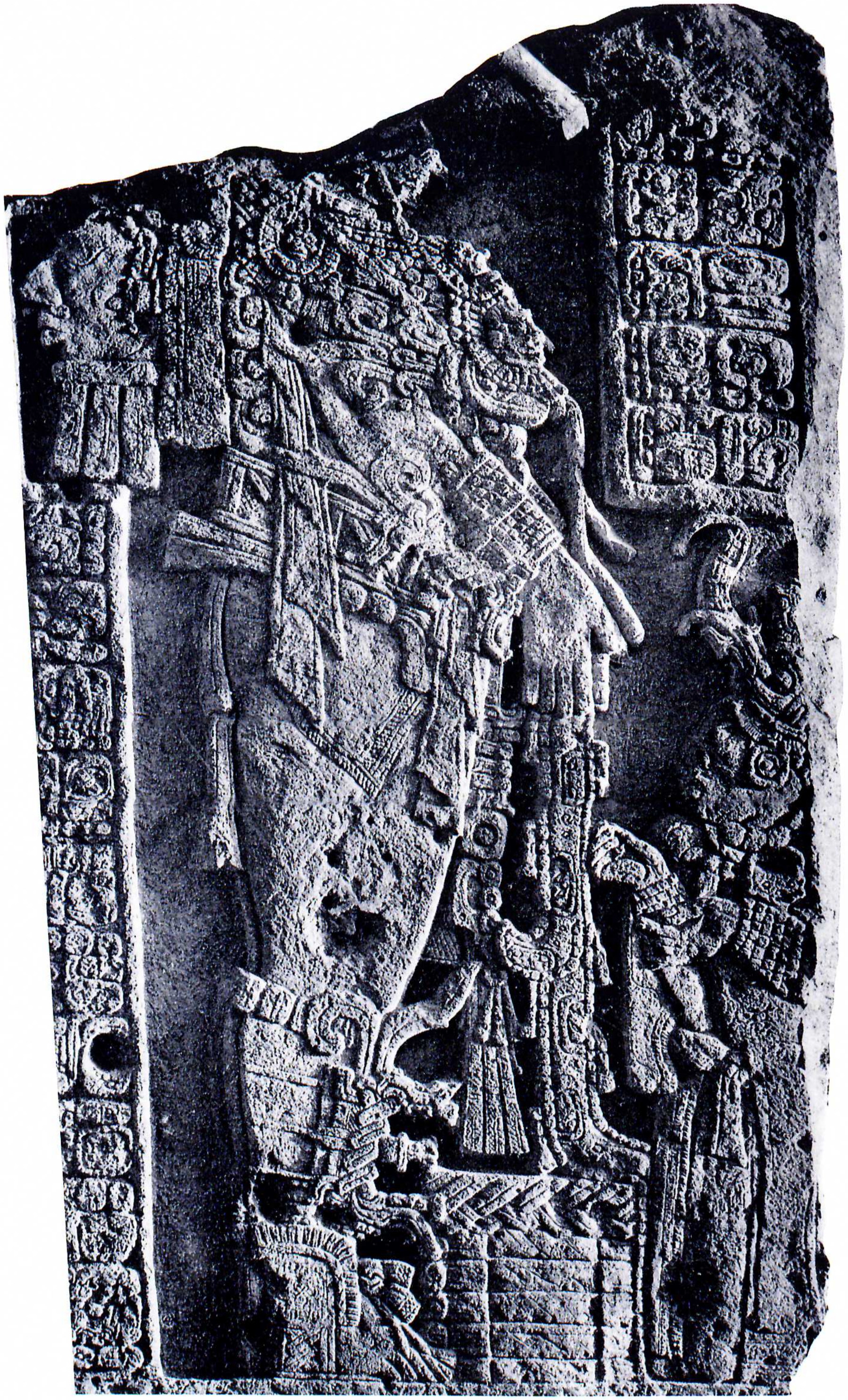
Ethnography is a seductive means of understanding far earlier speakers of Maya languages. The stories are plentiful, the listener has heard them first-hand. Questions can be asked and answered, then posed again for added clarification. Motivations and shifts of view may be explored over time and compared among speakers of the same language and occupants of the same community. Yet ideas change, as does their connection to larger systems of belief. Whether continuities exist is a separate question from searching Classic Maya images and texts for their own messages. What is meant by continuity becomes its own challenge. Ideas channeled through practice, modified by occasion, indicate a condition of fluidity rather than permanence. But still: Maya thoughts on matter resemble a consistent style of music, with similar notes, modes of composition, themes, and tonal emphases. Never the same tune, but recognizably part of a tradition that looks back on itself and searches ahead.

Available information from the Classic Maya is glyphic and pictorial, with great porosity between the two. A key element is a glyph, read *k'uh*, "god," or, when appearing as an adjective, *k'uhul*, "godly."[13] The sign has many optional variants, even a texture: colors (green/blue, yellow, a token of abundance), sea shells, and polished stones append to beads or dots that resemble the outlines of clouds. The variants, seeming descriptions of some aspect of the *k'uh*, convene to one side of the dots. By their inclusion, they suggest that *k'uh* had properties associated with vegetal plenty, lapidary stone, and, in rare instances, dark places with crossed bones: a link of sacrality with danger fits well with the fraught nature of holiness. For their part, shells have secondary links to the ancestors who occupy them and, in ritual, to the collection of blood and tribute. David Stuart notes that, in Classic Maya evidence, *k'uh* resides or originates in human blood. But the fluid is of a special kind. The effusions spill from royal hands and penises, probably after bloodletting with blades and stingray spines (fig. 49). Yet the spill does not exhibit the volutes or swirls of blood in Maya glyphs or imagery. It is watery and misty. Unitary in pictures, a continuous flow, it nonetheless atomizes like a spray of raindrops. The only similar substance in Classic imagery is the moist swell of a cloud.

The cognates and other related words radiate outward. As shown by historical linguistics, *k'uh* is a secure relative of Tzotzil *ch'ulel*, a denizen of blood, installed there by ancestors or tutelary gods.[14] Unstable, even fugitive, *ch'ulel* must be fixed to the body by ritualists. For Classic Maya rulers, however, the *k'uh* fastens to only three beings: the ruler, at times his wife or wives, and to "gods," *k'uh*, labeled with precisely the same word. When used as an adjective, it separates rulers from all other lords, and, as part of a courtly title, it signals, perhaps, a special priestly status. As mentioned in Chapter 1, a certain grammatical particle alludes to connections that are known but not directly or immediately witnessed. In effect, it demands faith. Some terms associated with the dead and the gods make use of the particle, imparting a shared quality to both.

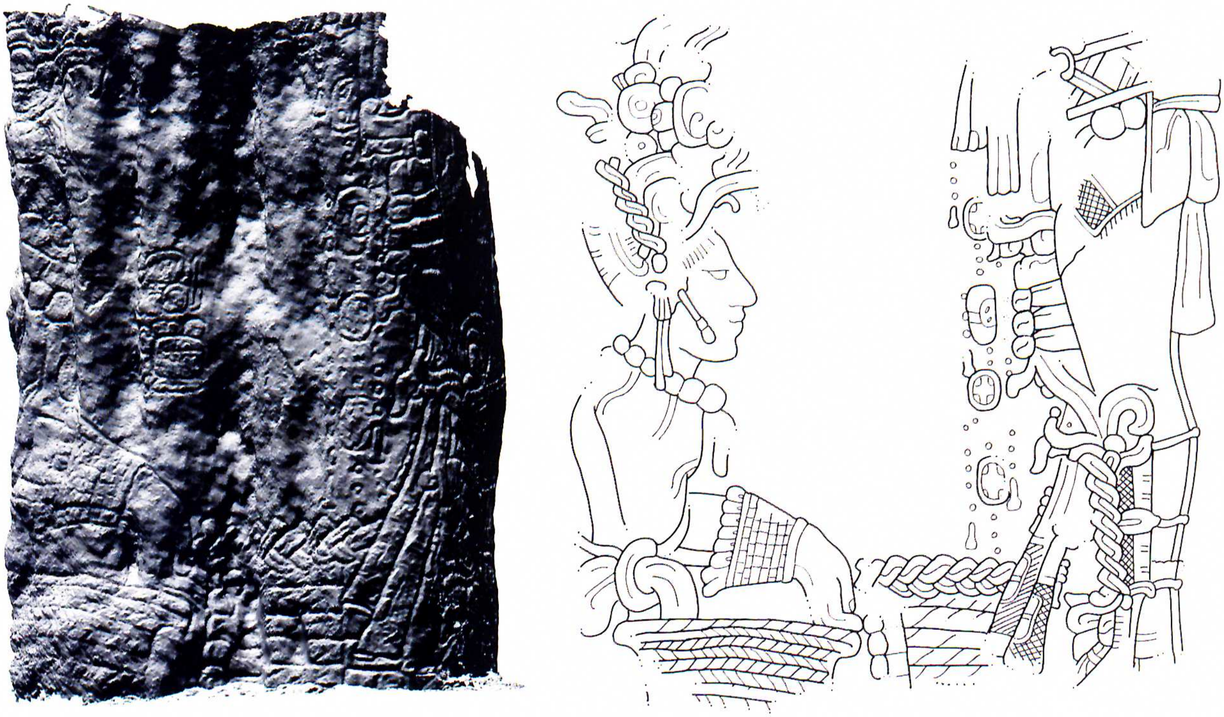
In Mayan languages, the term *k'uh* and its cognates encompass holiness in all its aspects. "Temple" or "church" in Yukatek goes by this name, the contents of a building—a god or the Christian God—labeling its container. Other meanings embrace "day," "sun," "blessing," "obedience," "idol," along with the basis of

**49** *K'uh* spilling from royal hands, Yaxchilan Stela 1, A.D. 761, Chiapas, Mexico (Peabody Museum of Archaeology and Ethnology, Harvard University, 2004.29.6590)



human emotion, thought, and speech.[15] In Classic thought, *k'uh* operates both as a transcendent quality and a specific identity. It is a general, unitary principle and an animate force that alights and merges with the particular and the tangible. Segmented into beings with personality and predisposition, it adheres to particular objects, places, effigies, even units of time. Parallel concepts include *ií* among the Mixtec of Mexico and *teōtl* for speakers of colonial and pre-Conquest Nahuatl. These are terms of force and potency, and, for those who speak of them, unsettling or menacing in tone. To the ethnographer John Monaghan, they reflect an age-old "monistic orientation," a perception of a "unified whole" in which divisions dissolve between the natural and supernatural. In theological paradox, that unity lends itself less to consistent and regular dispersion than to volatility. The strongest, most enduring energies grip the landscape. Another feature is that reciprocity underwrites human dealings with spirit force, to the benefit of all. The physical frame of people comes from eating maize. In give-and-take, energies crave food in return: "The gods may consume humans, but humans also consume the divine."

The Classic Maya seem to have believed in segmented, concentrated, and controllable *k'uh*. The *k'uh* could also possess identities and names, in ways that translate to "gods."[16] Yaxchilan, Mexico, is the most explicit in showing *k'uh* as it leaves royal hands. An image from its secondary site, La Pasadita, now in Guatemalan territory, fringes a display of k'uh with jewel-like elements, flowing off royal fingers onto an object wrapped with cloth and topped by a weave or plaiting. The verbal description for the event likens it to the scattering of incense. A stalactite cut from a cave exhibits the same flow onto a basket, but now at the dynastic capital of Yaxchilan itself (fig. 50). Also at Yaxchilan, Stelae 1, 4, and 7 deflect the spillage of *k'uh* from heaped, knotted cloth onto the head and shoulders of tributaries. Presumably, these people have brought offerings to the court; kingly *k'uh* is their reward. A bloodletting implement near the royal groin suggests that the *k'uh* gushes from royal veins and arteries, pouring, perhaps figuratively, over the bodies of compliant nobles. The rest spills down to consecrate their bundled offering to the king. This display, particular to Yaxchilan and the communities under its control, provides a glimpse into the spiritual dimension of royal reciprocity. But if this is a general view of royal distinction—that only rulers receive and channel *k'uh*—other cities make less of it. What does occur far and wide is the use of titles that associate the nature and quality of *k'uh* with royal persons. No known ruler, at least no living one, dares to be tagged as a *k'uh*, "god." That name is reserved for deities. Instead, as mortals, they seek a safer route for humans, calling themselves *k'uhul*, "holy" or "godly." Yet the rulers' claim of exclusive links to *k'uh* may not express

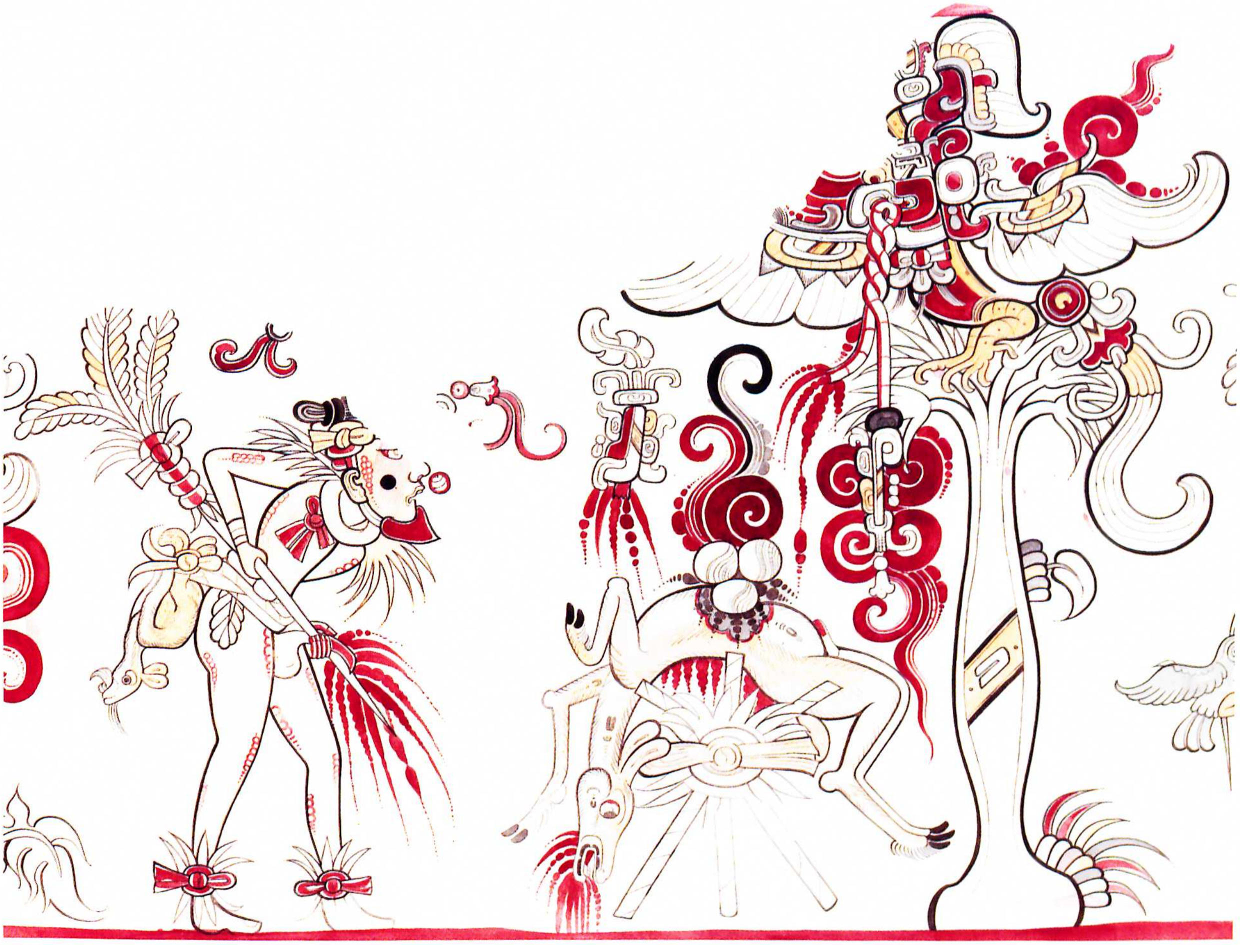


**50** *K'uh* flowing onto basket, stalactite, Yaxchilan "Stela 31," c. A.D. 750

a general postulate, whatever the site. Kings and nobility simply had the last word. Their lock on texts and images was near total. In quiet dissent, ethnography attests to a wider distribution of souls and energies, along with ancestors of a non-royal sort. These claims were doubtless ancient, too, if overlooked or disdained by elites.

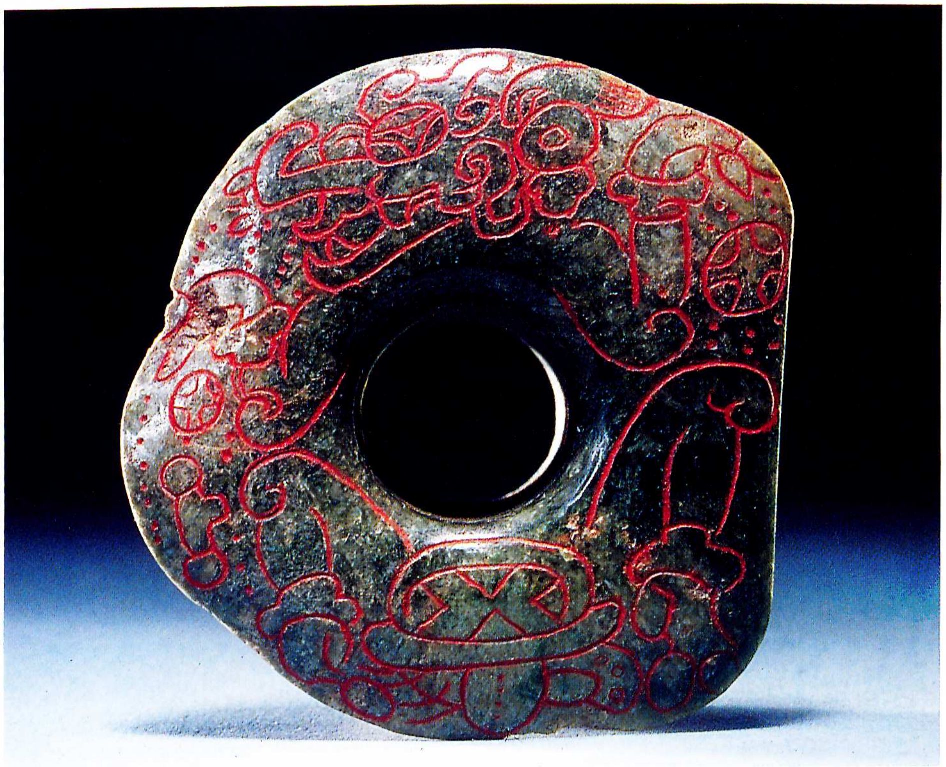
The restriction of *k'uh* draws attention to a far earlier set of images, the murals from San Bartolo, Guatemala (fig. 51). These detail two kinds of effusion, both in intense red. Discharged from mouths, one set is curving or rounded. Breath comes to mind, a force that animates and, when gone, takes life away.[17] Shown vividly on the West Wall and parts of the North, the other set is more pointed, even spiky. It tracks in clumps and clots or spurts in parallel curves. The referent is blood, placental or sacrificial. Like an arterial cut, it ejects with force. The contrast in form and layout is striking, but so is the color they hold in common and the fact that both emerge from bodies, objects, and animals.

Thinking on it, David Stuart wonders whether the more rounded features correspond to later depictions of *k'uh*.[18] The blood in the scenes coincides with birth, bloodletting, and the killing of birds by snakes and felines. Perhaps, to extend Stuart's observation, the rounded forms chart a more precise mapping of *k'uh* or some other category of spirit. They are not of venous or arterial fluid but something



**51** *K'uh* at San Bartolo, West Wall, c. 100 B.C., Guatemala

**52** Jade earspool, mythic deer-crocodile swimming in *k'uh,* with mythic incense burner as a tail

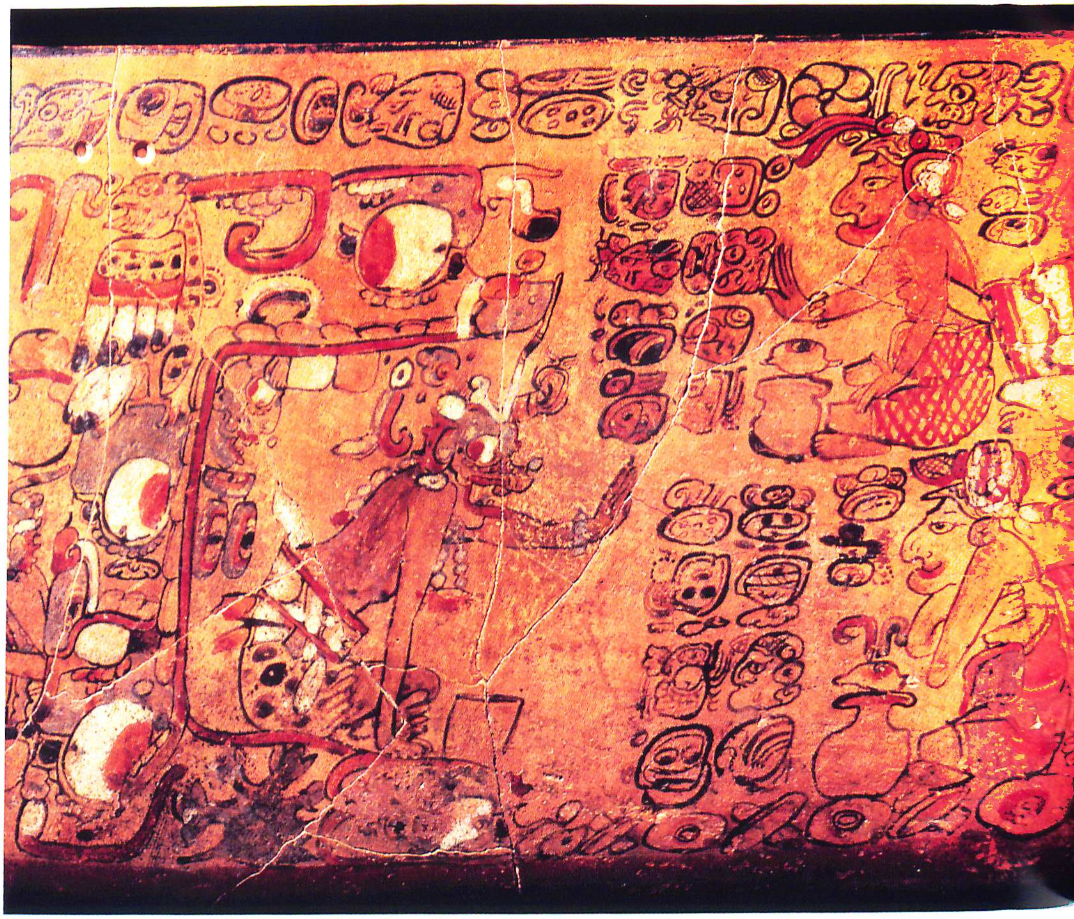


else, less a low throb of life than isolable, discrete clusters of vitality. Where it occurs: the mouth of certain cosmic beasts, the midsections of deities, the edges and fronts of ancestral bundles or thrones, alongside blood in scenes of killing, at the bases of sacred trees or by primal seas, billowing from certain plants, birds, celestial snakes, and the gutted, burning bellies of sacrificial fish, deer, and turkey. That the locations are non-random, that they are placed by some motive other than compositional impulse, accords with a notion of fixed spiritual address. The discrepancies are telling. Blood fills living things, streaming out on injury. But living birds at San Bartolo do not project the rounded billow noted by Stuart, nor do the lords who let blood. Historical figures, if such appear in the murals, fail to emit volutes. Goddesses do not show them either. Possibly, the billowing shapes collate different forms of animating essence, including breath, speech, song, final gasps at death, along with the exhalation of sacred things, trees, and flowers.

The difference may unveil a deeper truth. Sacred energies flourish, not with indiscriminate abandon, but in ways catalogued by ancient Maya a century or so before the Common Era. Potentially, the murals of San Bartolo offer a primal landscape of animating essence, erupting in ways not yet controlled by kings—although the evidence from the stelae at Yaxchilan suggests that they would eventually do so.[19] A charter of first things, the murals portray, according to this analysis, a terrain of fierce life and focused energy. Yet Maya belief must have varied. One image from the Early Classic period has a primordial crocodile swimming through *k'uh*, as though it were an expansive, limitless sea of sacred energy (fig. 52).[20] Perhaps this was some early state before humans. If there is a conclusion to draw from contradictory evidence and competing claims—that *k'uh* could both centralize and exist everywhere—it is this: by such means, the Maya explained the dynamism of the world and its variable ebb and flow. To use a thermal analogy, they lived in a universe with uneven heat. Some sectors were scalding hot, others cold, quiescent, dead, bloodless or, worse, bereft of *k'uh*. Energy came and went but could be persuaded to stay in certain places or bodies for a longer time. By the Classic period, however, rulers claim to have tightened their hold on this form of vitality.

The question remains, where did the Classic Maya find traces of surging spirit? San Bartolo enlivens many things, birds, beasts, plants, all vibrant in ways Europeans might understand. Yet, in added mystery, there is, on the North Wall of the murals, a cave that exhales. Its opening becomes a mouth, its canine a stalactite. A large literature reports on Maya concern with caves.[21] The San Bartolo murals record a little of what is thought to have taken place in them, including the extraction of primordial food and water. Much later images put Chahk, the rain god, within a grotto, probably reflecting a particular theory about the birthing place of storms. (After a heavy rain, or just before, depending on humidity, clouds mist near the mouths of caves or puff along stony cliffs and overhangs.) A noisy fellow, Chahk presides over parties from his cavern home (fig. 53). On one pot, his hand extends in command and encouragement. In front: an orgy of old gods and young women. Multiplied several times over, Chahk serves to one side as his own orchestra. Bellowing loud or lewd songs, he/they play their rattles and drums. Yet, in Maya imagery, caves with mouths, eyes, noses, and brows are seldom generic. A few correspond to the rocky *witz* or "hills," but even these have marks that identify them as particular places or a mountain of paradise. They are not just any ridge, escarpment, or knoll. Most likely, too, the Maya had many mythic caves. A Late Classic scene merges a cavern with a bird, the 'O, and the rocky opening in the San Bartolo murals affixes an additional element, *k'an*, "yellow" or "precious," to its head.

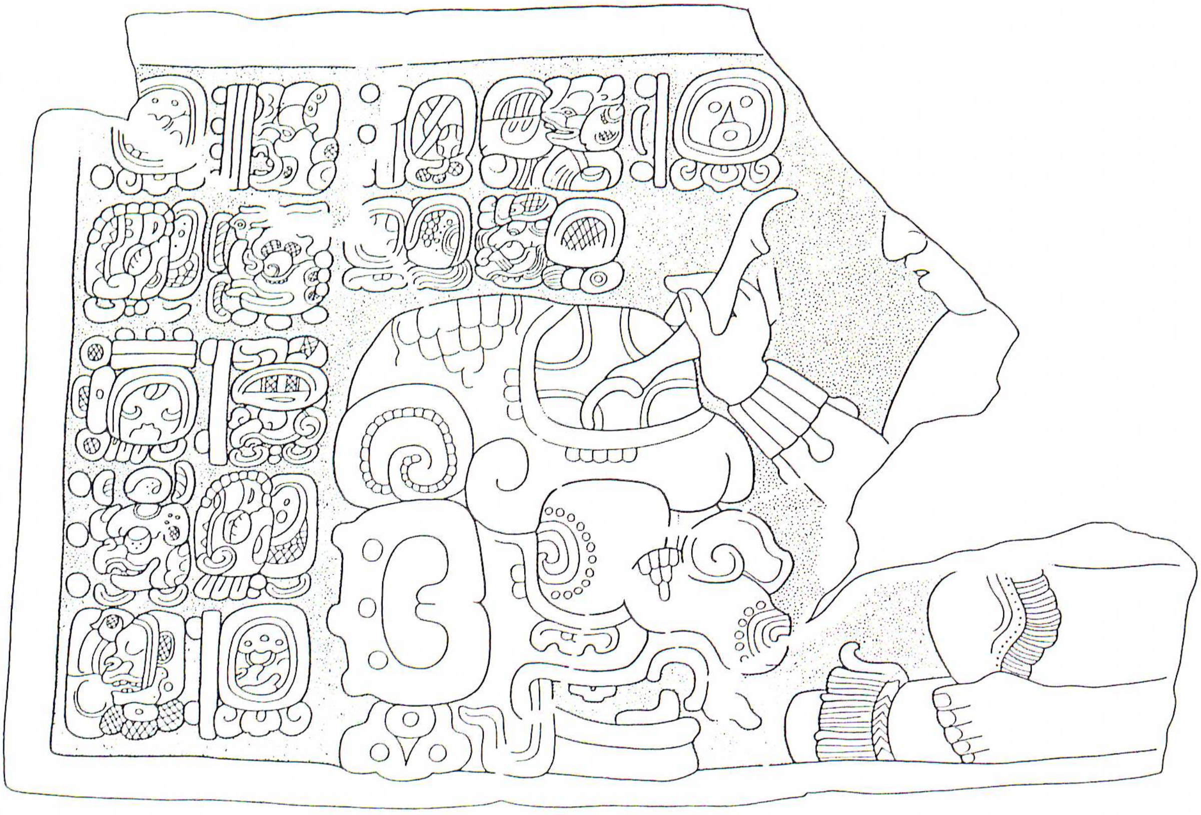
All around is stone, on cavern walls, ceilings, and floor. Rock in Maya imagery tends to accent its texture and substance. In a noteworthy departure, a few stones or stony places, like the San Bartolo cave, grow eyes, mouths, and ears. There is life within their rocky hearts. Responding to this element, an earlier generation



**53** Chahk in his cave hosting a party, c. A.D. 600, Guatemala or Belize (Ethnologischen Museums, Staatliche Museen zu Berlin, Ident.-Nr. IV Ca 49923)

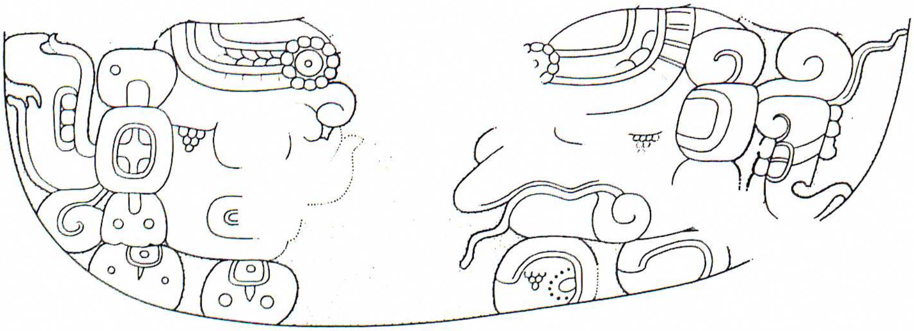
of scholars devised a term for rocks with faces: "cauac monsters," after their similarity to a Maya day sign, "cauac."[22] This turns out to be misleading. Not a few animate stones carry an unambiguous reading of *tuun*, "stone." An everyday material, *tuun* would seem an odd substance for animation. Its bulk and weight imply a high degree of inert passivity. But the Classic Maya had a different view. In one essay, Stuart explores the animacy of rock in general, and the examples of them that have been set upright as monoliths or "stelae." When the sign for "stone" features more than a mouth, nose, or eyes, it materializes as Chahk, the god. A shell covers the ear, and a lock of bound hair caps the head, both attributes of the deity. If Chahk lives in stony caves, at least part of the time, that would account for the connection. In support of this, Maya imagery tends to equate residents with their settings, as in "god," which names "temple" or "church" in Yukatek Maya. The glyphs do much the same. A supernatural eagle stands for the "sky," and a mythic serpent linked to water becomes this fluid, its body a stream of bubbles.

But the animacy has a more subtle presence. A raucous wielder of celestial axes, Chahk connects with stone. His weapons, struck or thrown, land as lightning on the surface of the earth—indeed, the tie between celts and lightning embroiders folklore in most parts of the world.[23] The hurling and striking engenders, it seems, a dispersion of Chahk's identity, a jolt of godly essence into solid rock. Yet the identification with the god is indirect. According to glyphic texts, most "rocky" Chahk do not read *tuun* in writing. Rather, they refer to a set of months linked approximately to the rainy season, when the brawling one becomes most active. An exception is on the Emiliano Zapata panel, a unique depiction of sculptural carving by a king (fig. 54). Sitting as a rounded stone, head only, Chahk no longer tosses his hank of hair, although the shell ear-cover remains. His forehead features the sign for *k'an*, "yellow, precious, ripe." Other texts, dating some decades later, declare one version of the deity—he has many—to be the *k'antuun Chahk*. Perhaps this description fits the god when he lives in stone. Indeed, the use of *k'an* above the



**54** Emiliano Zapata panel, A.D. 702, Tabasco, Mexico

**55** Stony heads at Caracol, showing place name, Altar 12, A.D. 820, Belize

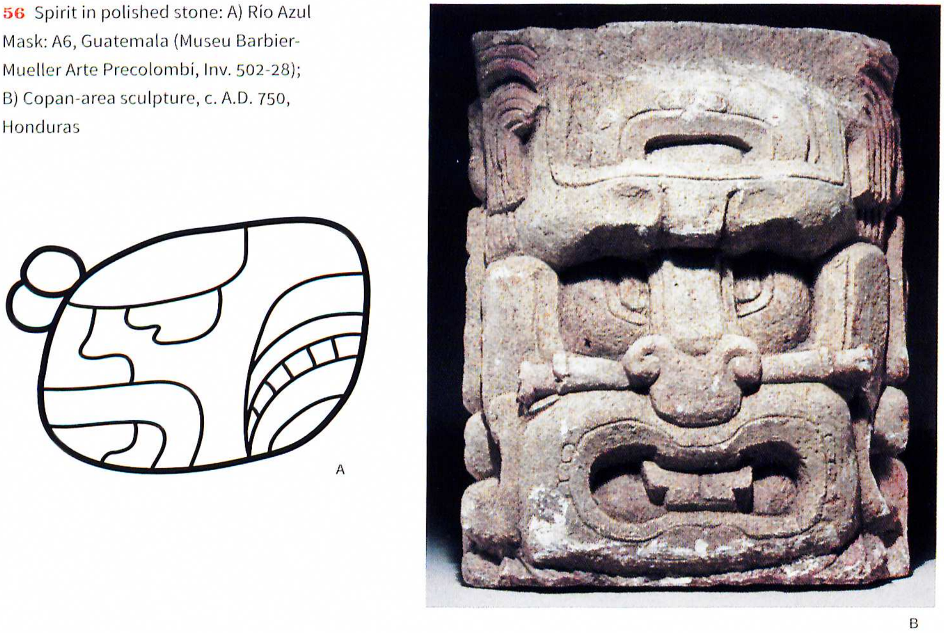


cave mouth at San Bartolo suggests a link to the deity, who makes an appearance in other parts of the mural.

The Emiliano Zapata panel offers a second insight. It mentions the act of carving, probably the panel itself. Although the stone is a flat, once-rectangular block, the image of the carving has rounded corners and disembodied face. The abstraction and indirect mention transport the viewer into a mental image, a figured glimpse into the key attributes of what stone is or what it should be. Places, too, can be shown in this detached, concentrated form. At Caracol, Belize, the sculptors display them with stony heads at the end of the Classic period (fig. 55). Their handband corresponds to a sign read "3," after the local place name, 3 *Witz* or 3 *Witza*, the "three hills" or "three hill-lakes." These may cite the major reservoirs at the site, and, as noted in Chapter 1, the Maya scribes often acknowledge that "hills" share attributes with stone, including animacy.[24] The head at Caracol marks a separate identity and, in this example, uses embodiment to announce the living essence of a place. A defined object, separable from the surface, supported on a glyphic suffix, has come to stand for a named, civic landscape. The small-scale connotes the large, the large folds back to the small. The varied contours of Caracol, a sprawling site, reduce to a single head of stone.

In another argument, Stuart suggests that the godly animation of rock is what accounts for many early stelae, especially at Tikal and Uaxactun. In these, carvers elect not to discipline the stone, a feature noted also by Andrea Stone for speleothems—moved stalagmites—in Maya caves. Texts and images wrap over uneven surfaces, and the original surfaces modify only a bit. At least in mass and rough shape, the sculptures resemble "found" objects, if selected by some enigmatic method. Was the mining of stone always a routine affair or did it require mystical preparation and discernment? Whatever the process, the stone appears to take precedence over the presentational demands of glyphs or imagery. By implication, too, if rock conducts certain essences, then all stonecutting, even of limestone for building and fill, involves an act that is more ritual than not. Sculpting takes on a new role. In addition to stone, it shapes and subordinates a set of beings.[25] For Maya viewers, a masonry wall came together by human effort. But to those who saw spiritual depths in rock, blocks and facings might spark with other energies. This speaks to the rare spolia or reused carvings in certain walls or stairways. Often shattered, incomplete, and badly oriented, they were placed for a reason, even if that is now difficult to fathom. A force might have been harnessed, exploited, abused, or made to do things not intended by the carvers or their patrons. That all stoneworking invokes ritual and spirits is implausible, however. The more unusual skill

**56** Spirit in polished stone: A) Río Azul Mask: A6, Guatemala (Museu Barbier-Mueller Arte Precolombi, Inv. 502-28); B) Copan-area sculpture, c. A.D. 750, Honduras



is to distinguish between stones with energies and those without, and to prime the first for some special function.

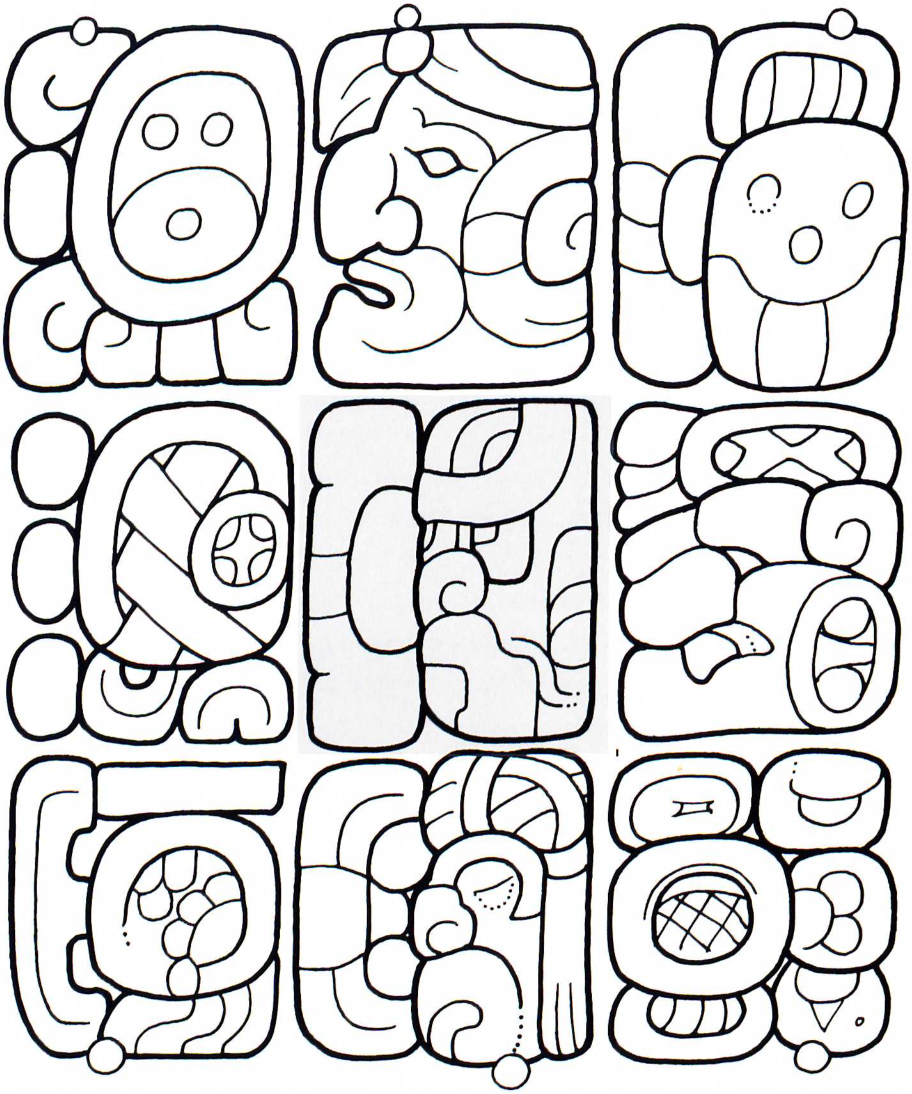
Stuart's second point is that Chahk is not the only presence in stone (fig. 56). Something else is there, too, especially in depictions of highly polished rock: a face in profile, inhuman, blunt nose, sometimes with stylized breath, puffy lips, and a single filed incisor. To a noticeable extent, the face resembles the *k'uh* sign.[26] The eyes have the same rectangular eyes of raptors, keen-sighted and predatory. The similarity between a sign for "divine" or "sacred" energy and another for polished stone unveils elements of both, although they differ in some respects. The more fluid energy has sets of small circles to the front or top. In Maya reading order, that would give them an adjectival tinge, a note on quality or some special property, especially in early examples. Perhaps they define some liquid or misted subset of the spirit in stone. It did not last long: by later times the two signs diverge.

For the face in stone, a watchful animacy inhabits a lasting material, yet humans have a role in bringing it forth by grinding the surface to a high glow. Called the "shiner" or animate "mirror," the face occurs on glyphs or depictions of polished celts or axes, a category into which the Maya and other Mesoamerican peoples assigned their stelae. From earliest times, the conceptual bond of celts (few longer than fifteen centimeters) to stelae (some higher than three meters) hints once more at a calculated indifference to scale or magnitude in Maya depiction: as noted for the skeuomorphs in Chapter 2, the usual matching of scale stretches, even explodes, if the claimed resemblances are transcendent, if they hint at broader cosmic or ontological connection. When essence counts, size matters less. The shape of the celt is always oval, to be expected of a polished piece of stone. Within that outline is an internal lozenge with curving lines. This motif captures both the glinting edge of shiny surface and a hard exterior that reflects and encloses a doubled, near miraculous image of the viewer. To look into the gleam is to go deep, to see another face staring out, like and unlike the viewer. Hard material of this sort can be brought to a high finish only by many hundreds of hours of labor.[27] The investment is conscious. A shine results from effort *not* spent elsewhere, a field not planted or harvested, a structure not built, objects not made by skilled hands.

If sweat contributes value, these pieces have it beyond all other things of comparable size. They are also appealing to ancient Maya eyes. On one early text, dating to the early years of the Classic period, the head appears in poetic combination with a glyph for "flowery stone."[28] To the Maya, this is high praise. And when preceded by the glyph *yax*, "green/blue" or "new," the head refers, as in one piece dug up at Palenque, Mexico, to a sizable chunk of fine jade, the most esteemed of Maya materials (fig. 57). Slabs set into stairways at Pomona, Mexico, hint at the enhancement of lesser substance by valued ones. An animate celt looks out at the viewer; its sides and headband show recessed circles, their contents missing (fig. 58). Presumably, these once held polished hardstones, infusing their quality to a carving of humdrum limestone.

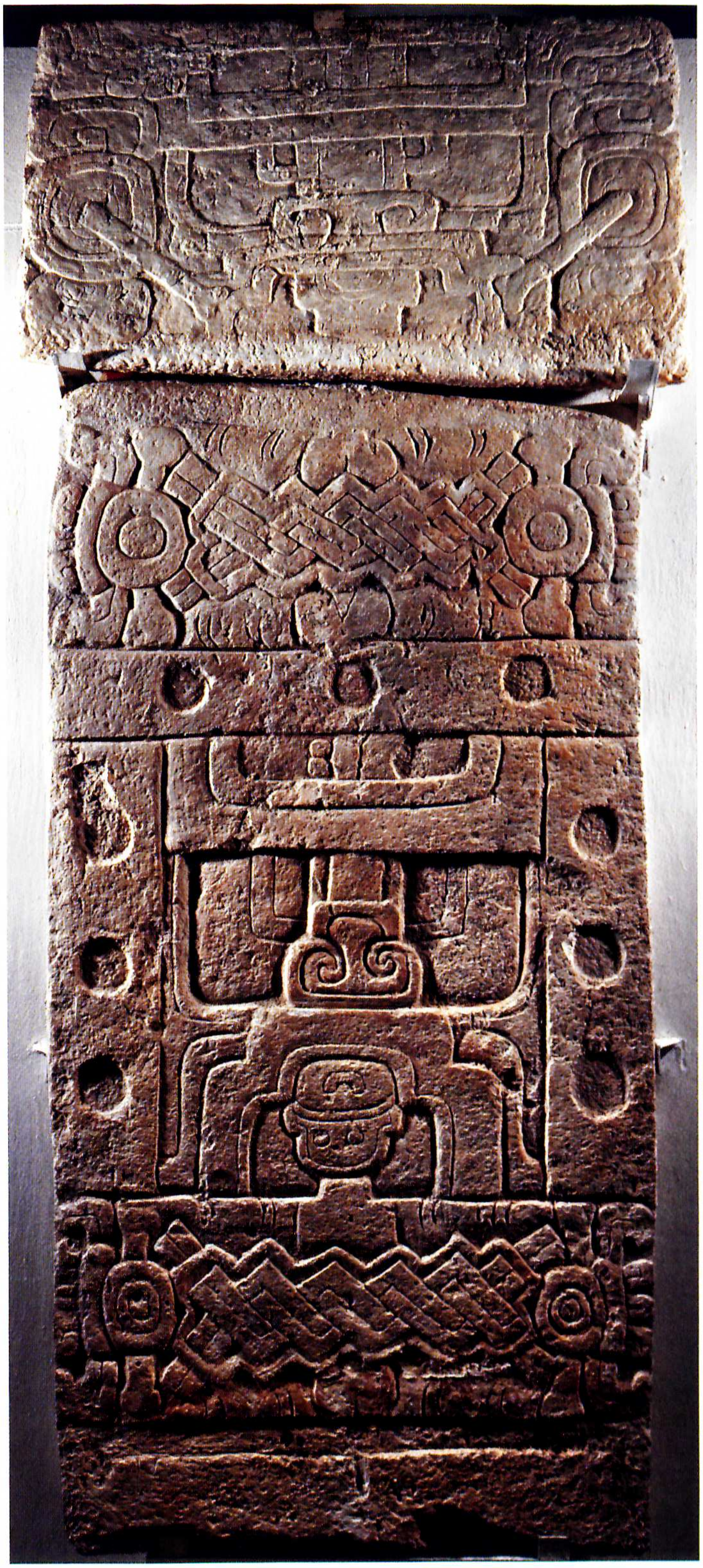
Jade is a special instance of material with soul or spirit. A personal find, from a burial at El Diablo, Guatemala: a jade bead, bored for suspension, was repurposed by pressing it into the mouth of a deceased, Early Classic king. Spied first near cervical vertebrae, encircled by a necklace of *Spondylus* shell, it beamed a dazzling green. A later account, from the northern Poqom Maya of the sixteenth century, explains why the bead was there: "When it appears then that some lord is dying, they had ready a precious stone which they placed at his mouth when he appeared to expire, in which they believe that they took the spirit, and on expiring, they very lightly rubbed his face with it."[29] Breath as hard beads, depicted as such in Mesoamerican imagery from the Preclassic to the Postclassic periods, preserves an aspect of life beyond death. The permanence of stone lends its endurance to an energy that is inclined to escape. The jade captures and imprisons it. Most depictions of breath also adopt floral forms, "emitting," by the cross-play of senses, a "sweet fragrance ... the olfactory quality of the breath soul: dulcet air that contrasts with the stench of death and decay." If kings and nobles could not always adorn themselves with fresh flowers, they could wear permanent bouquets, blossoms out of jade. The jade

**57** Jade and spirit within, highlighted, Palenque, Temple XII, originally from Pomona, Tabasco, A.D. 697, Chiapas, Mexico (Museo de Sitio de Palenque "Dr. Alberto Ruz L'Huillier," 10-458708)

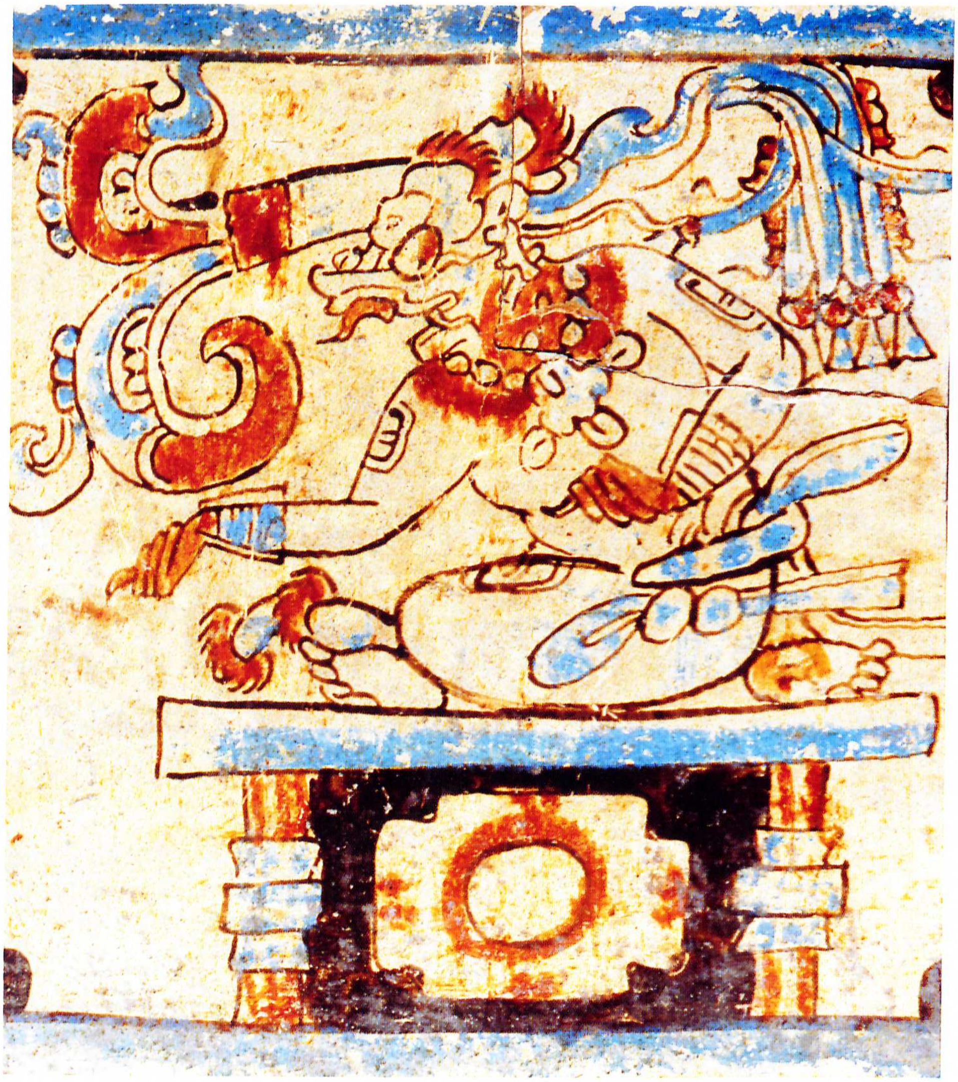


masks that cover dead kings at sites like Palenque and Calakmul expand this concept by offering a replacement for rotting bodies, now converted to the lithic flesh of gods. But jade was not the only home for breath or spirit essence. Many seashells worn as chest pendants display the names and images of ancestors floating on them, carved as partial bodies, a head, an arm or two. Their fitting label: a term with *ik'*, "wind," a pan-Maya word linked to the breath and life. These compact dwellings for ancestors would rise and fall on the chests of descendants, strengthening and responding to the breath of the living.

Glyphic texts report that to grasp or offer larger stones, especially stelae, involves an act of "binding," *k'al.*[30] This calls to mind the magical fixing of energies noted



**58** Slab with spirit of polished stone, east-facing, Pomona Structure 4, c. A.D. 750, Tabasco, Mexico



**59** Deity with markings of polished celts, A.D. 700, La Corona, Guatemala? (American Museum of Natural History, 30.3/2492)

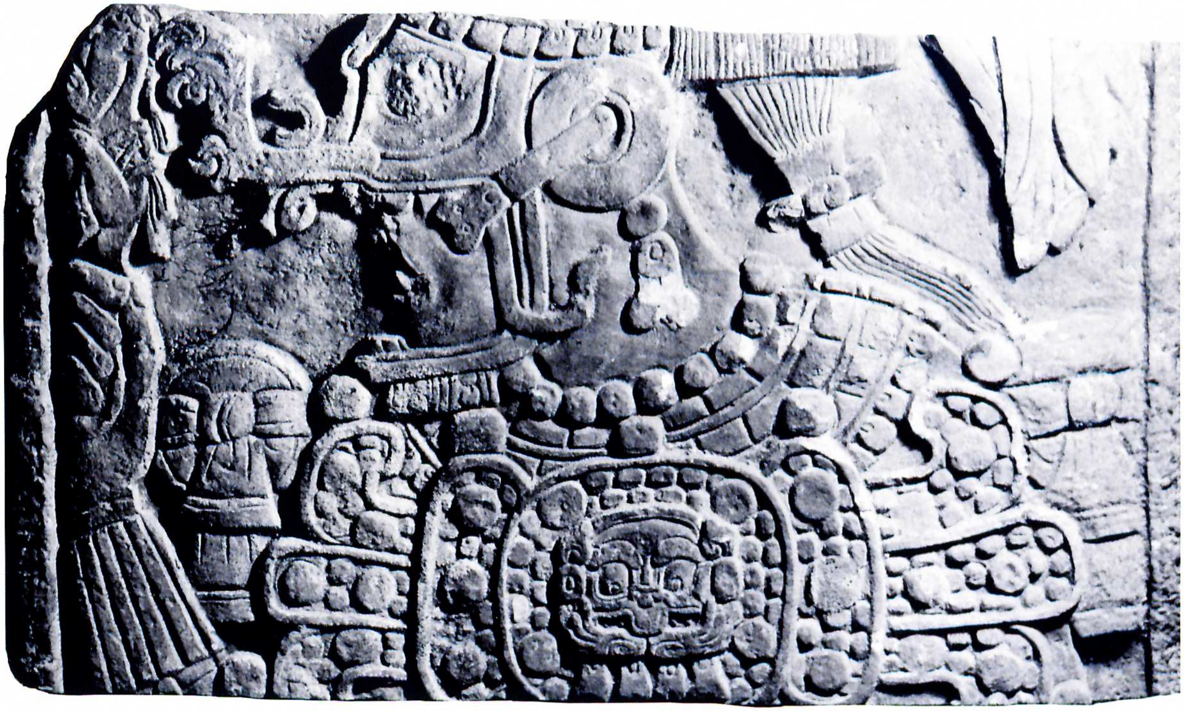
by ethnographers. That many deities in Classic Maya imagery show celt markings is puzzling (fig. 59). As Karl Taube suggests, these may originate in primordial fetishes attached to bodies. Yet, as the convention develops over time, the celts begin to qualify the nature of tissue. Usually soft, it is now of glinting rock. Godly bodies were built to last, unlike human ones. The necessary supposition, too, is that gods were *heavy*, their substance dense and mineralized. Another such marking, in this case with the sign for "night" or darkness, depicts obsidian, a prized material capable of similar polish (see fig. 15). By no coincidence, when Maya rulers appear on the surface of jade or hardstone celts suspended from belts, some seem to be ancestors, not living lords. The clinking of such jade when worn would emit a chime-like voice, much like the stone bells (*qing*) of bronze-age China. Perhaps the Maya celts, too, were musically tuned by their length and thickness. The polished stones make sense of several mythic trees, including those on the Tablets of the Cross and Foliated Cross at Palenque. Their trunks could not be cut by any axe. Other trees dangle "celt-fruits" or "celt-gourds." Human teeth or tools would break on them. Celt-gourds even occur as glyphs, with the predictable face inside. Celt-plants and celt-flesh inhabit a divine world of eternal material, in categorical contrast to human foods and bodies. A florid metaphor of the K'iche' Maya in the Colonial period evinces a similar pattern, opposing "soft," *ch'uchij*, and "hard," *kow*. The first is calm and balanced, the second "inhuman."

Other stony materials sport life, but in less interpretable ways. These are *took'*, "flint," and *taaj*, "obsidian," harder than most limestone, more easily worked than jade, their images and glyphs discussed in Chapter 1. Like *tuun*, "stone," they show no explicit evidence of *k'uh*, yet they do harbor signs of life. The Late Classic Maya depict them as bony creatures with skeletal heads. This occurs only in images, not in texts, where they also appear. Sometimes paired, the materials have a practical affinity. Both can be knapped, if in different ways. Obsidian conduces to the production of long, elegant blades, flint to flakes and axes. But their shared boniness suggests some property in common. Perhaps this was their jagged outline or a joint origin in the earth, the abode of frights and the eventual resting place of humans. The materials have a second feature worth noting. As mentioned in Chapter 1, a few spectacular examples take the form of dancers, or their surfaces display incised or painted deities.[31] Made by a small number of craftsmen in Late Classic Belize or nearby, the dancers appear in profile, with full bodies, if with schematic legs and feet. Pure outline and edge, their details could not be worked into the grooved flint; small faces repeat the head of the dancer in a burst of repeated essence. Several images painted on flint are so faint as to be recoverable by special imaging alone. The question looms: are such materials merely a background for a painting or incision, or is the material itself a conveyor of essence? Are there beings inside, and does the surface design or shape expose the contents within?

What can be said is that some of these animated forms hint at mythic origins for material. A variant of the "wood, tree" sign, read *te'*, has, as its base, a deity head with jaguar ear and bloody mouth, a feature explored in Chapter 1. Imagery confirms that this creature corresponds to some fabled version of the great ceiba tree, a forest giant considered to be an emblem of centrality. Simon Martin and I have speculated that such animate forms—the conjecture applies equally to skeletal flint and obsidian—situate the origins of particular signs in mythic examples.[32] Those would be unique, even legendary models that explain and come to stand for a larger class. As explained earlier, but worth repeating here, to see a flint, obsidian, or tree is to behold an actual thing yet also to reflect on its unique and storied parent. A common material comes into focus, and a tale of origins accounts for the very first of its category. These implied stories, known to most viewers, may also explain the special nature of certain materials and their claim to animacy above other things.

The most prominent features of animate materials for the Classic Maya are that they are few in number and quarried from the ground or collected as felled trees.[33] All possess a terrestrial quality, including the plants rooted in soil and stone. The mythic tree may depart slightly from the animate lithics in that it occurs in primordial scenes, but never as an object accessed by humans. The same applies to other plants with anthropomorphic bases. These range from skeletal water lilies to trees with edible fruit or growths—many are modeled on the Maize God, on human ancestors who, as shown in Chapter 1, reside in fruit trees or other deities that fructify as plants. They identify the essence of such vegetation with beings much like the Maize God, a spirit of useful growth, supple, young, and edible. Materials *not* shown as animate deserve their own listing: earth or clay, animal products like hide or leather, and parts of plants or crops from them, including leaves, needles, straw, wicker, and fibers. The pattern is suggestive. Animate substances can be subtracted in human hands. The carver or knapper cuts away to create the desired form. Those not clearly animate involve an additive or transformative process, a human intervention that seemed to affect, at some profound level, Maya views of those substances. Above all, the animate materials, particularly the lithics, are about heat, the warmth of rubbing and continuous abrasion, the sparks from flint, and the blood, dripping with *k'uh,* released by sharp obsidian. In their working, they are magical and revelatory, releasing by human craft the potentials promised by myth.

Yet, the lurking face so close to *k'uh* may be different, another form of vitality that inheres in polished and portable stone of great hardness. Possibly it always existed in such rock, yet it may also have needed human effort to notice its presence or to concentrate it therein. Many Maya groups employ bright or crystalline stones as instruments of divination. Among the Itzaj of northern Guatemala, such stones still served in the twentieth century for healing and finding lost people or things. Symbiotic with their owners, they housed "an animate force, having once been a being who was forced to take the form of the crystal as a punishment for drunken behavior."[34] For its reward, the crystal got a stiff drink, dipped into liquor. The payment ratified an underlying contract and assured that this animacy could be



**60** Mutilation of Maya sculpture, Dos Pilas Stela 11, A.D. 716, Guatemala (Museo Nacional de Arqueología e Etnología de Guatemala)

made to work for humans. There is not just life in material but an accessible and enabling power that enhances sight and deepens knowledge.

A complication arises between this emphasis on material—or more precisely the energies within—and the imagery it carries on the surface. Most Maya portraits serve as surrogates and extended bodies for those they depict.[35] To ancient thinking, the sculptures listen, interact, and talk by voicing first- and second-person pronouns. According to glyphic texts, they are the *baah*, the "self" or "body" of the person they depict—no captives appear with this term nor do many people of non-royal status. In this, the term conveys the same shadings as the far later Nahuatl word *īxīptlayōtl*, an "image, likeness, representation." More than an image, it lodges a spirit by wearing appropriate "mask" or "masked raiment"; the word itself contains particles for "face," "eye," or "surface," a "flaying," and things intrinsically possessed. But being of stone, the Maya carvings last longer than their human originals. By multiplying a person, they allow it to exist in several places at once, fixed in a particular time—most have inscribed dates that pin down the portrait. They also remain eternally in *that* time, uncorrupted. In the long term, the images assure human survival beyond death and the decay. Yet, a key and expressive moment of their existence is that, at some later moment, that survival is uniformly denied. Almost all have their eyes pecked out or their mouth and nose mutilated (fig. 60).

This process deactivates. The sculpture can no longer "see," "talk," or "breathe." Perhaps the damage dishonors, perhaps it only removes an image from ritual service. But it does, at least, reflect a presumption of life in such images. The complication is that, whether in synergy or opposition, the energies of the stone jumbled with those of the image, possibly in mutual reinforcement.

The spirit of stone, introduced by blasts of lightning or brought to life by intense polish, recalls the use of stone by the Inka of South America.[36] For them, stone was "not subject to death and decay ... [it was] life immobilized ... [and] animacy 'paused' for an unspecified period." The Mixtec of Mexico, too, believed that certain categories of being, residents of earlier states of creation, were creatures of stone, the *ñuyu*. These notions depart utterly from Aristotle's conviction that animals and plants could have souls, but not stones. For him, rocks did not enjoy the requisite ability to reproduce, move, perceive, and think. The Inka thought differently. There were everyday stones, beneath notice, and also special petrifications, rocks that refused to comply, stopping stubbornly on their way from quarry to construction. On a gradient of animacy, these were rocks that could talk or vocalize like active beings, the "eating person" stones. Other stones came from lithified warriors or came back to life. Some needed to be persuaded. A few—the most impressive ones by their overwhelming bulk—merged human will, expressed by cut and dressed blocks, with the basal stone known in Latin America as *roca madre*, "mother rock." Roughened edges, an incomplete join, a gaping crack, and a knob used in hauling stone revel in the sheer stoniness of the core material. The validity of certain acts, especially of witnessing and viewing conquered landscapes, needed to be done from a petrous throne, the *usnu*, and original, animate rocks might be replicated by touching a surrogate that could be spirited many hundreds of miles away. Somehow, by transmission of essence, they were still the same as the rock they touched. The transubstantiation, the play of matter and essence examined in Chapter 2, reverberates with such practices. It is a view of material in which substance more than surface informs the use of stone.

The Inka evidence stimulates not because of its precise detail or historical motivation, but because of its claim that stone might, to varying extent, canalize energies as part of an aesthetic of official policy. Among the Inka, rocks were coaxed and allowed to present their essence, yet ultimately subordinated to control within, according to Carolyn Dean, a "culture of stone." More distant but still active are similar treatments of rough stone brought into Chinese or Japanese gardens. Inhabited by gods in the case of Shintoism, or celestial energies falling to earth in Chinese stone, they bring humans into close, manageable contact with purifying spirits. The oriental evidence accords with the contours of shifting and merging beliefs. Shintoism identifies certain rocks and other objects as "divine bodies" or provisional repositories of deities; Daoism asserts that special stones acted as "unusual conduits" of "condensed essence"; a well-known Chinese practice detects "sonorous stones" by tapping on them, a certain tone believed to reveal special properties.[37]

For such hard things, the Chinese managed also to see instability, capacity for transformation, and the possibility that humans might "work" or control such changes. Stones dwell in that space between mortality and immortality, a zone where mortality comes back to afflict the deathless.[38] A separate issue is the degree of sentience in such stones, whether they can think and feel. In Buddhist thought, sentience ramifies into discussions of salvation, in that a plant, too, could achieve nirvana according to certain schools of thought. For Mayan languages, "sentience" probably ties to the human attributes of reason, wisdom, will, and imagination, as emphasized in colonial Yukatek. The brooding presences in Classic materials show no evident signs of mobility. They exhibit no will, independent action, or aptitude for orderly thought or wisdom. They perceive, possibly eat, cut and slash. They live: in fact, "enlivenment," an awkward term, may describe them better than "animacy." But their sentience, if present, dulls to dormancy.

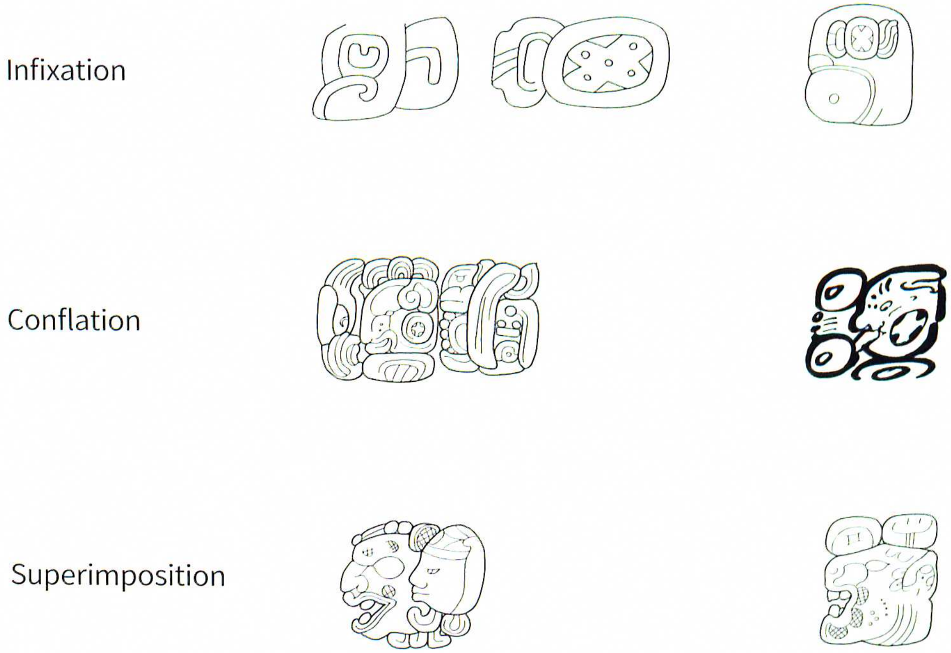
The literature on Western imagery abounds with studies of vital images, their veneration and abhorrence.[39] Miraculous to some worshipers, they provoke rage in others. Images can been seen as false beings and theological or liturgical confusions. For those who believe, such images should be "true," in the sense that they are acknowledged as such by society and the supplicant. Primarily, they are believed to do something. An advantage, whether altruistic or not, is always desired from that encounter, be it health, prosperity, salvation, tranquility of mind, an intercession to attain some earnest wish. "Devotion" seems less apt a word than "petition." An insightful study of social interaction among the Mopan Maya of northern Guatemala frames the whole with what may be the most effective means of harnessing spirits. This is *tzik*, "respect." To the Mopan, *tzik* distinguishes them "from the animals and from other ethnic groups." Failure to show such respect is to behave "like a dog," inhuman and oversexed, barely sentient if at all.

For the Mopan Maya, rudeness has cosmic consequences. With the disintegration of *tzik*, "not only would men murder one another freely and take their own sisters, daughters, and grandmothers to wife, but on that day household furnishings would be transformed into wild beasts and wander away." Energies are not won over by bullying or coarse wooing. They need understanding, a cultivated approach. Classic Maya notions of animacy probably involved similar protocols of use and engagement, much like the speech, prayer, and gestures described ethnographically. The evidence suggests, too, that the sacred properties of animacy, affecting divine stones and exotic materials, set certain things apart for special attention. Animation in imagery does not result from mere play or pleasing invention, just a fun way of picturing—it categorizes things and their innate energies. More to the point, a general notion of life relates to, but is not entirely the same as, the claim of life within certain matter. The second is about storing energy, implying its potential for future use. Ultimately, the belief that animacy might exist weighs less than how it was recognized, worked, and by whom.

### Writing That Lives

Classic Maya writing has animacy too. It shows the same eruptions of life that might appear in wood or stone. But, in part, such animacy has other explanations. The first arises from the ephemerality of language and the need for proxies to give lasting form to meaningful sound. Bursting with life, a few glyphs, the so-called "full-figure" examples, reflect the vitality of spoken messages. Like so many bodies in motion, they talk, cry, sing, shriek, fight, consume, even copulate. In the process, they transform puffs of inflected air, only seconds in duration, into a record that can be consulted again and again. The speech act may be long past, yet, with writing, a means of activated storage, it has the potential to go on in endless repetition. A second explanation derives from the nature of Maya script. At times, in a profound twist on representation, glyphic signs evaporate the boundaries between text, image, and living beings. Thereby, the scribes and carvers summon all the powers of the "occult technician" mentioned by Alfred Gell. These properties lead us to reflect more broadly, with Maya and other evidence, about what is "living" and what is not.

Glyphs are among the few hieroglyphic systems in the ancient world. As a term, "hieroglyph" or "sacred carving" derives from a Greek term stressing the arcane and priestly nature of Egyptian script.[40] Special use and training are worth emphasizing. Even more basic, though, is the tenacious pictorialism of these systems. All rely on conventionalized images that tie visually to the world around them. On a superficial level, pictures enhance accessibility. Viewers identify, with slight knowledge, a particular creature or object, linking that sign to a particular word. But a deeper grasp of their content arises solely from mastery of language and the principles of spelling. By their pictorialism, hieroglyphs invite attention. By their subtle rules, they limit how much can be accessed.



**61** Infixation, conflation, and superimposition in Maya glyphs: infixation (left, Leiden Plaque: B9-A10, 1403-1193, Museum Volkenkunde, Leiden; right, Copan Structure 9N-82, reused step); conflation (left, Pomona Jamb 3:A1-B1; right, Rio Azul area vessel: C1, K1383); and superimposition (left, Tortuguero Monument 6:B8; right, Tortuguero Monument 8:G1)

Pictorial hieroglyphs are like and unlike elements of imagery. They refer recognizably to things around them, a hand, a bird, an eye, or an animal. But the sequencing follows the order of language, not the looser structure of visual narrative.[41] For the Classic Maya, images are nonlinear encrustations, collecting markers of role, identity. Yet parts of them also march freely between images and written language. Name glyphs may alight on a headdress to identify a ruler or lord. Some are actual objects, carved of wood or shell; others invade pictorial space with elements of text that are uncertain to be physically present. Nonetheless, for both image and glyphs there is a strong impression of separate, bounded identity. On a stela or a pot, a standing or seated human appears as a fully figured body, complete and edged. In much the same way, a Maya glyph implies a corporeal existence beyond its occurrence in text.

The pattern becomes most clear when scribes compact glyphs, perhaps to save space, more likely to show virtuosity (fig. 61).[42] In some compaction, known as "infixation," a complete sign reduces in size. It is then inserted inside another glyph. A second process, "conflation," fuses two signs by compelling them to share an outline. But the condition is inconstant. Alternative spellings return the signs to full, discrete form. In this, the glyphs recall the acts of impersonation by which, for a time, rulers absorbed the identities of certain gods. The final compaction, "superimposition," suggests a conceptual layering of some Maya spellings. It reveals their claimed or presumed physicality. To explain: a subset of Maya signs are "complex." For historical reasons having to do with long development, these contain multiple, distinct elements but record only a single word or sound. (By contrast, a "simple" sign has no such multiplication of elements.) When superimposed, complex signs disappear conceptually behind other signs. Only a part of them, an affix, peeks forth. Tacitly, a shadow glyph lurks in the background, "covered" by superimposed signs. Then the spelling can be disassembled, the complex sign reexposed. Only in the final years of the Classic period did complex glyphs lose this notional layering—the shift becomes evident in spellings that strip the affix of its implied elements. Perhaps this reflected calligraphic economy or a new codification of signs. The bounded, volumetric property of Maya glyphs, with clear demarcation of interiors and exteriors, explains another feature of the writing. This is the complete absence of any cursive or rapid writing. Common in stroke-based scripts, cursives have no such counterpart in glyphs. Maya signs hint at impatience in the rapidity of certain brushwork, not the running fusion of signs.

Depending on perspective, hieroglyphic scripts are either rare or relatively common. The difference is time. Scripts that preserve pictorialism are unusual. Egyptian dominates discussion because of its ubiquity and early decoding, but there are others: the obvious Maya case along with most of its Mesoamerican peers, Rongorongo of Easter Island, Luwian of Anatolia, and the freshly detected example of Assyrian hieroglyphs (fig. 62).[43] Not all are long-lived. Luwian lasted some seven hundred years, Rongorongo possibly less than one hundred, Assyrian for about the same span. Assyrian, which might have arisen from astrology or some other, esoteric impulse, came into existence with apparent knowledge of Egyptian, as did Luwian. In the long term, however, pictorialism conditions most early scripts. The first cuneiform has transparent links to iconic representation, from signs for "head" and "eat," both shown with schematic heads, to "bull" with horns and "female slave" with labia; so, too, the earliest Chinese texts on oracle bones, which offer a crescent for "moon," drops from clouds for "rain," or an undulating shape for "water."

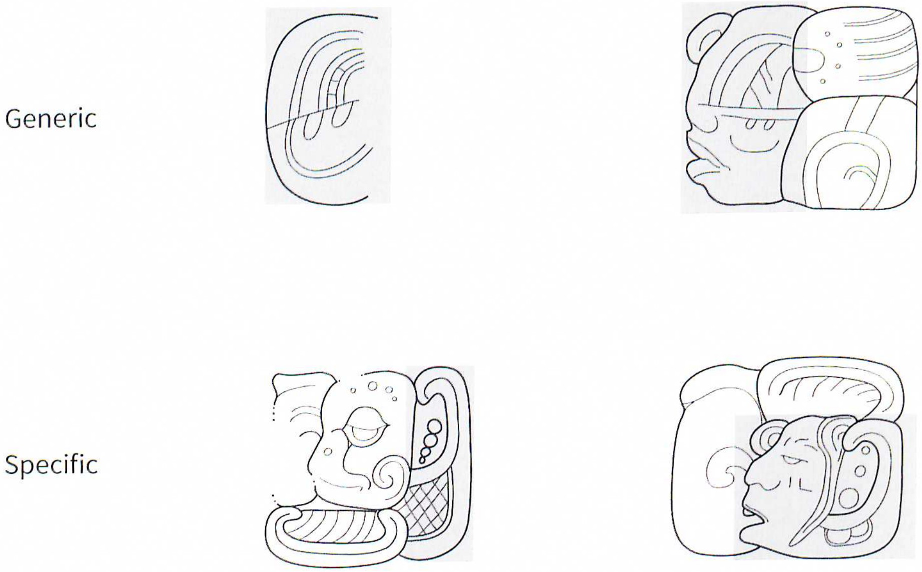
The crucial difference is the resilience of pictorial reference and the continued porosity between image and text. Within a few centuries, cuneiform and Chinese script would proceed to highly schematic versions of these signs, written with rapid strokes rather than the unbroken outlines and volume demanded by pictorialism or its possibility of ready cross-reference to imagery. Two pathways seemed viable: a hieroglyphic pathway that eschewed erosion of detail, and a schematic pathway that did not.[44] Uniquely, Egyptian evinced a third, hybrid route, of sustained pictorial

**62** An example of a hieroglyphic system, Assyrian, Lord Aberdeen's Black Stone, 681–669 B.C., Iraq? (Trustees for the British Museum, London, BM 91027)

forms in hieroglyphs alongside a nonpictorial pathway that became schematic and cursive, with functions far from the formal displays of hieroglyphs. The hieroglyphic pathway and its enduring investment in pictorialism could not have been a haphazard commitment, but one rooted in a need to converge or align the record of language with other forms of representation. The desire was to preserve a broader community of images that also enfolded, by orderly means, the linear properties of language. At its core, for the Classic Maya, was the discreteness of hieroglyphic signs. Despite the playful indignities of compaction, they proved inviolable, an ordered stock of irreducible things, existing less as illusionistic signs than as objects and beings in the world.

Maya writing offers an ontological complication, with bearing on matter that lives (fig. 63). In certain texts, glyphs acquire faces, torsos, arms, and legs, along with a physical integrity akin to other creatures.[45] More than signs for sound and meaning, they possess the attributes of living beings. The process by which glyphs achieve such bodies can also be described as "animation," a quickening or vitalization in which hieroglyphs indulge and give full exuberant expression to their pictorial nature. In its faintest form, animation reshapes the outline of a sign by adding a nose, mouth,

**63** Animation, generic and specific, in Maya writing (top row: Yaxchilan Lintel 23:M5 and Palenque Temple XVIII, bottom row: Dos Pilas Stela 8:H14 and Palenque Temple XVIII, 471)



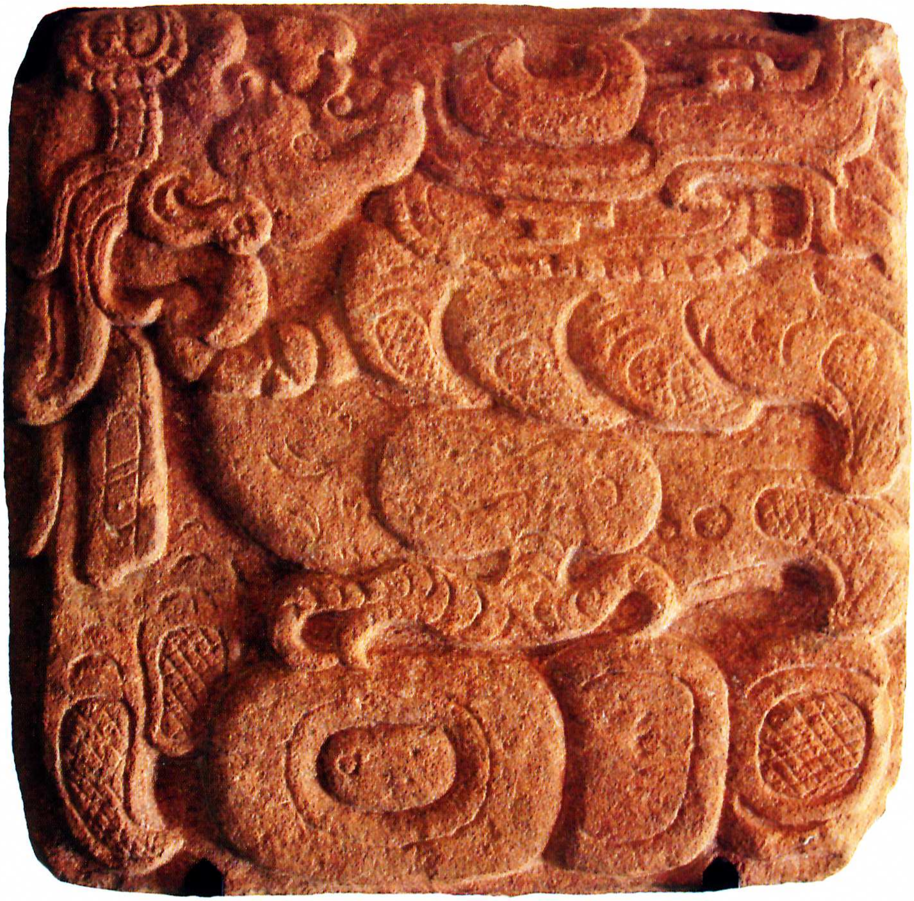
forehead or wisp of hair. The intent is "generic," a suitable label for them. They have no clear reference to a particular being other than a graceful, youthful face or, as the full-figuration erupts, a body, often clothed in simplest form but enough to hide the privates. There is a bit of jewelry for the ear or to define and cover ankles and wrists, a bead necklace. In no case are such figures shod—they have settled in for relaxed comfort or the more modest dress of courtiers, quite at home. A variant sort of full-figuration might be described as "specific." The bodies fit with the creature or god whose face is shown. A bird head has a bird's body, a toad a toad's, if, at times, in striking hybridization, these creatures are partly human, bestial or avian. The mixing may transport the signs away from everyday depiction of creatures in nature; they are marked, set aside or apart from the ordinary.

The most common orientation of animate signs, either in head or full-body guise, is to the left. They face the flow of reading. To scan Maya glyphs, the eyes shift from left to right. The glyphs meet that flow in a manner of social address familiar in courtly imagery.[46] In such tableaux, often in palaces, faces look to faces, bodies pivot to other bodies. The higher-ranking individual is usually to the right, defining a focal point for contact in front. Logically, that arrangement of space infuses the act of reading with similar social meaning, but with an intriguing consequence: the glyph occupies a position of greater honor; the reader approaches the sign as a supplicant. Overall, however, the glyphs approach but hold back from the domain of narrative imagery, dutiful to the syntactic demands of text, but writhing, calling, kicking or, at other times, well-behaved and sitting more sedately. Their complex processing, both linguistic and scenic, is nearly impossible to reconstruct. The epigrapher, sorting through the text, finds they are accessible only by first parsing for the underlying linguistic content. This, I can attest, is my own experience as a challenged reader. Only then can the mind refocus on flamboyant surfaces and the ornate, even distracting detail. The eyes and brain must dig deep, transpose the text into more familiar forms, and reemerge in appreciation of the ingenuity exacted from sculptors and the work expected of readers. In this process, though, is a cherished paradox at the heart of hieroglyphic systems. They codify and compile pictures of things in the world, *and* they exist as writing, taking and storing meaningful sound.

This turbulent identity, poised between different configurations of meaning, raises larger issues. Ingenious scholars, among them James Elkins, have sought a redefinition of the boundaries between pictures, writing, and notations.[47] Never "pure" or wholly separate from the other domains of mark making, "writing and notation *are* pictorial," too—by chance, Elkins points exactly to Maya full-figure glyphs as examples of flux, tension, and possibility. The full-figures invite a blurring of preconceived categories. They interact not just linguistically but as embodied, legged, armed forms. A few seem to go beyond the visual. Open mouths imply speech, song, cries, all in a howling, murmuring, squeaking, orating performance. For his part, Elkins inspects various attempts, by Ludwig Wittgenstein and Nelson Goodman, to recover, or to relinquish in despair, an "impossible dream of unity" in the ways that humans make marks. Maya full-figure glyphs trample on that yearning for unity. In full-figures, pictures, writing, and notation seem superficially to merge in harmonious sequence. Yet a complete union is unattainable. Syntactic ordering must always bow to language, not the competing demands of pictorial composition. The glyphs record a statement made of linguistic elements. Their job, to fix sound and meaning, brings the signs together as linguistic enterprise, whatever the attempt at surface play, the bodies that grab and squawk. In fact, this push and pull, a detour into pictorialism followed by the steady recognition of language, must have been a prodigious amusement, for both the sculptor and the reader. With effort, a satisfying riddle could be solved. But the unity might have been there all along. If the intent was not just to represent but to create, if glyphs stood not only for something else but for themselves—if they *were*, if they existed as beings—vitalities would energize all such mark making and, probably, reflect Maya understandings of formal speech behind the full-figure glyphs. The full-figures were not so much (or only) encryptions that required skilled processing. They revealed the essence of glyphic nature.

Signs with this complexity should attract the attention of scholars. To a surprising extent, they do not. Recognized for over a century, the full-figures elicit some comments, valid ones, about virtuosity, general vitality, animated or embodied time, or a living language with creative powers.[48] But they are not seen as a broadly revealing domain where images and texts collide, converse, and fuse. The likely reason for such neglect is that the signs are relatively rare. Glyphs that show head forms are abundant, ones with bodies much less so. Some exist as isolated signs, almost always of creatures, especially birds and rodents or an unidentified nocturnal mammal. The birds appear to take flight, land, and extend their wings in active, threatening display or, a common sight, dry them in tropical sun. Without exception these creatures are word-signs or logographs, with, say, a sound, *muut*, and a meaning, "bird" (fig. 64). In this case, the body of a bird, talons visible from the side, fuses with the head of an elderly god, Itzam. The name of the bird eludes us, but its general label is certainly present. The syllable below the talons, **ti**, both reinforces the final consonant of *muut;* through a spelling rule discovered by specialists, it also cues the vowel length of the main word—the contrastive vowel of the syllable, *i,* serves to indicate this feature. The cities of Tonina and Xcalumkin, Mexico, and Copan, Honduras, have a few such glyphs, always in reference to a deity with avian characteristics. Crawling or sliding on their bellies, the mammals record, by contrast, syllables such as **ch'o** and **ji**, These signs convey no direct meaning other than the image of a word that generated the syllable, such as "rat," *ch'o'*—the extra sound, a glottal stop, being peeled away for syllabic usage: the **no** from *nok'*, "cotton," and **ta** from *taj,* "pine," both noted in Chapter 1, follow precisely the same pattern. Isolated word signs and syllables occur at cities like Tonina, Moral-La Reforma, and Xcalumkin, all in Mexico, but go back to at least 100 B.C. in the case of San Bartolo, Guatemala, where full-figured birds roost in painted texts. Their long beaks and small bodies suggest songbirds, a view confirmed by scenes nearby, where similar birds emit the curving lines of sound (fig. 65).

One set of full-figure glyphs, dating to around A.D. 450, emblazons the exterior wall of a building housing the remains of the dynastic founder at Copan, Honduras (fig. 66).[49] A curious doubling ensues: there are words, *K'inich Yax K'uk' Mo'*, "Sun-like Green/blue Quetzal Macaw," yet also the entwined quetzal and macaw themselves. These birds are choreographed as emblems in pictorial space, attending to symmetry more than syntax. Other elements insert into their beaks (the *k'inich*) or on the forehead (*yax*). The emblematic format, highlighting a royal personage and enlivened versions of his name glyphs, recalls the writing of Teotihuacan, a central Mexican civilization tangled closely with Maya elites at this time and with

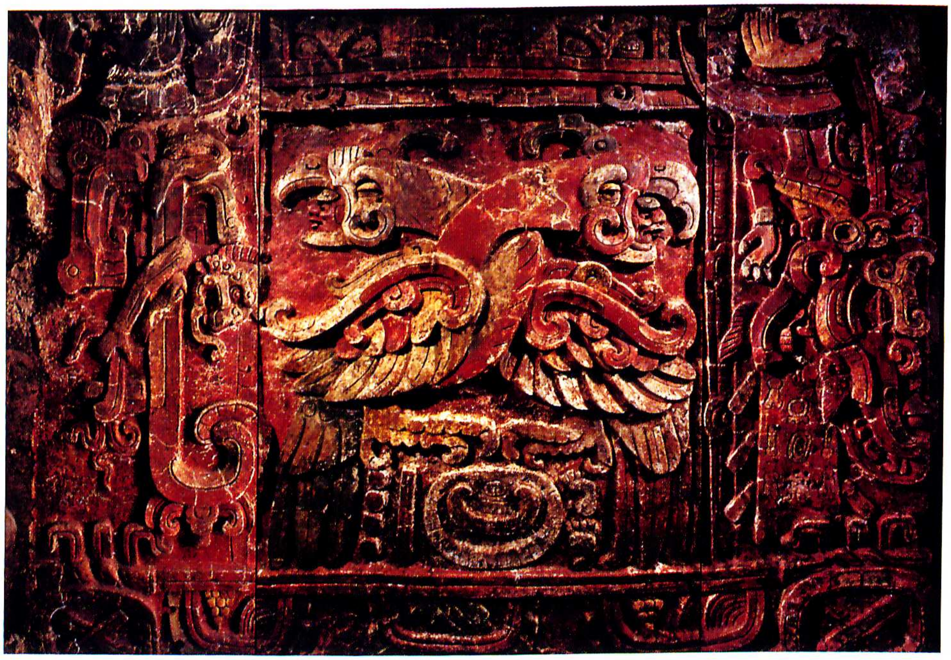


**64** Full-figure bird, *muut*, fused with deity Itzam, Tonina, exact provenance unknown (Museo de Sitio de Tonina, Tonina, Mexico)

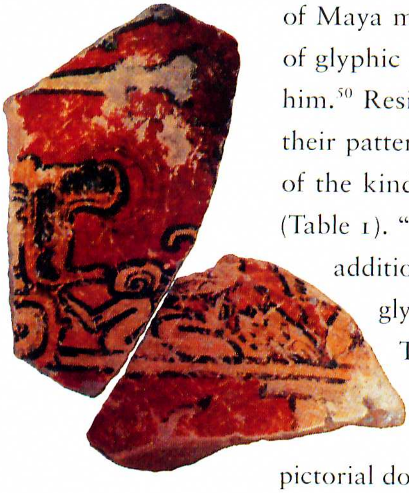
**65** Songbirds at San Bartolo, Guatemala, c. 100 B.C.

this ruler in particular. Glyphs at Teotihuacan take different pathways from Maya. Their syntax concentrates on nouns and adjectives, not the verbs that kick them into action. The glyphs, too, tend to occupy the center of pictorial fields, a fact that thwarted their initial identification by scholars. A similar process occurs in an example from the Late Classic period, at El Zotz, Guatemala: a tender growth of maize, *nal*, hovers as a sign above a newborn Maize God (fig. 67). To some, they seem symbols only, not transports for language, names, places, or titles. Yet, at Copan and elsewhere, the Maya examples are planted in local soil. When such forms do occur, even in texts linked to Teotihuacan influence, they are of birds or animals in all cases. They show beings or presences in fully realized form.

Longer sets of full-figure glyphs—ones that do not appear as isolates—conform to more subtle principles. Their first florescence is at some distance from the others, on Altar 12 at Takalik Abaj, on the Pacific piedmont of Guatemala. From the beginning of the Common Era, it marshals what may be the patrons



**66** Margarita facade, c. A.D. 435, Copan, Honduras (University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia)



**67** Newborn Maize God under *Nal* sign, c. A.D. 700, ceramic, El Zotz, Guatemala (Ceramoteca, Instituto de Antropología e Historia de Guatemala)

of Maya months around the side of the altar. That sculpture records a series of glyphic heads, each oriented toward a central figure, as though addressing him.[50] Resistant to easy reading, most full-figure texts still manage to reveal their patterns. Two routes of entry make this possible. The first takes account of the kind of signs in such texts and how those might be ordered in series (Table 1). "L" corresponds to "logograph" or word-sign, "S" to syllable, and the addition of "F" specifies that one or the other has materialized as a full-figure glyph—hence, "SF" is a syllable with such properties, "LF" a logograph. The goal is to detect the rhythms and cadences of figuration in relation to other signs. The second route shifts away from sign classification, focusing instead on how the full-figure glyphs interact in a purely pictorial domain: where do they face, how do they appear to move, if at all, what do they clutch or support or sit on?

Such scrutiny leads to several conclusions, some general, others of relevance only to this or that text at hand. The most evident is that full-figure glyphs avoid, with one exception, the tiny or the miniscule. They blare forth in more public settings. The exception, an exquisite text carved out of bone, slides along the ventral surface of a crocodile or other long-tailed reptile.[51] Its text-laden belly lies at the point of contact with the surface below. The glyphs contain recognizable signs, but in perplexing order. The opacity is notable, singular, and well beyond the obstacles

| DATE | MONUMENT | SERIES OF SIGNS |
|---|---|---|
| 400 | Caracol Stela 20: A1–A3 | L-L-L-HV? L-LF L-LF L-LF L . . . |
| 526 | Yaxchilan Lintel 48: A1–B4 | L-L-L-L HV-LF HV-LF HV-HV HV-LF HV-LF L-S-HV L-S?-L L-L-S . . . |
| c. 700 | Crocodile Bone: pA1–pA5 | LF-LF-S LF-SF SF?-S-LF? LF-S-SF LF-SF |
| 720 | Palenque Palace Tablet: A1–B14 | L-L-L-LF LF-LF LF-LF LF-LF LF-LF |
| 753? | Yaxchilan Misc. Stone | . . . LF?-SF? ?-? SF-SF-S LF-L LF-L-LF S-S-SF SF-L-LF-LF SF-LF-S LF-LF-S |
| 755 | Copan HS, Step 1: A1 . . . | L-L-LF *LF-LF LF-LF LF-LF LF?- . . . LF-L L-L-L-L-SF LF . . . |
| 756 | Copan Temple 26: A1–P7 | **LEFT VERTICAL:** LF-LF LF-L-SF SF-SF-S-S S-LF-LF SF-L-LF? SF-L-SF<br>**TOP:** LF-LF LF-LF LF-SF-S-S-S LF-LF HV-L-L-LF LF-LF SF-S-SF LF-LF-S LF-LF LF-S . . . LF? LF-LF<br>**RIGHT VERTICAL:** LF?-LF L?-LF?-SF L?-LF LF-S-S-LF-S LF-LF-L-LF-S-LF |
| c. 760 | Yaxchilan Throne 2: A2 . . . ? | . . . LF SF?-SF?-S?-LF? LF-S-LF-SF SF-LF-SF-LF ?-? . . . LF?-LF? LF-LF-L-L LF-L-LF . . . LF-L-LF-S-LF SF-LF?-S-S-LF . . . |
| 766 | Copan Corte Block: pA1–pK1 | L-LF-S-S SF-S L-LF . . . LF-L-S SF-L-S-S SF-S-LF S-L-LF SF-S-SF LF?-S-LF L-SF ?-L-S S-L-LF |
| 766 | Quirigua Stela D: A1 . . . B7 | L-L-L-LF LF-LF LF-LF LF-LF LF-LF LF-LF LF-LF<br>[IDENTICAL ON BOTH SIDES OF STELA] |
| 771 | Copan Altar 41: A1–G1 | S-L-LF SF-SF SF-SF LF-L S-S-L L-LF L-S-S?-L? S-LF-S-S L-L-LF |
| 775 | Copan Altar W: A1–H2 | L-L-L-S-S S-S-S L-L L-L-S-S-S S-S-S L-L LF-L-L S?-S-LF LF-L-S-S LF? . . . LF-SF LF-LF-S . . . LF? L-L-L-S-S? ?-?-L S-S-L-S-S ?-?-? ?-S L-?-L-S?-? |
| 780 | Quirigua Zoomorph B: 1–18 | L-L-L-LF LF-LF LF-LF LF-LF LF-LF LF-LF LF-LF-LF LF-LF-LF LF-LF-LF LF-LF-LF-HV-SF-S-L-S LF-LF-LF-LF SF-LF-L-S LF?-LF?-S-SF-S L-S?-S-LF?-LF LF-LF-LF-LF LF-LF-LF LF-LF-LF-LF |
| 780 | Copan Harvard Bench: A1–M1 | L-LF LF-LF LF SF?-LF?-SF? SF?-SF-SF LF-LF LF-LF L-SF-S L-SF-SF-L LF-LF SF?-LF? S?-LF?-S?-LF-? SF?-?-S-LF-? LF-S-S-S-SF LF-LF-LF-LF |
| 781? | Copan 9N-82 Bench: A1–P1 | LF-LF LF-L-LF LF-S-S-LF S-S-SF-LF-S SF-L-S-LF-L-L SF-L-S-L-S-LF S-LF-?-LF S-S-S-LF S-S-LF-LF? S-S-S-LF-S S-LF?-S-LF S-LF-SF LF-S-SF LF-S-LF-S LF-LF-LF L-L-LF-L |
| 790 | Quirigua Altar O': B1–C2 | L-L-L-LF LF-LF LF-LF-LF HV-HV HV-HV HV-HV . . . |

TABLE 1

SERIES OF FULL-FIGURE GLYPHS

NOTES

L = Logograph
S = Syllable
HV = Head Variant
LF = Full-Figure Logograph
SF = Full-Figure Syllable

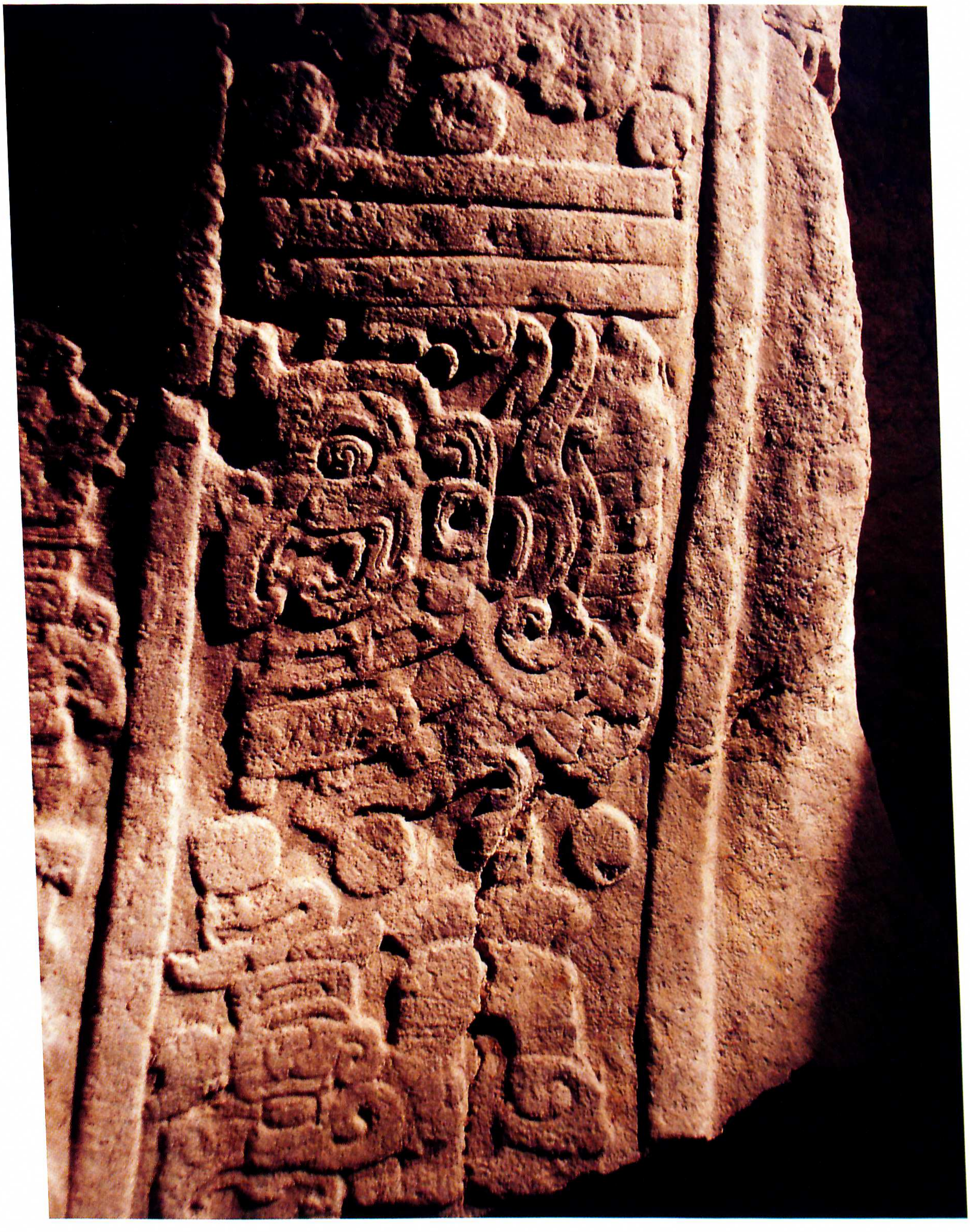
Common Era dates are in the so-called GMT correlation, astronomical variant.

**68** Caracol Stela 20:A3, full-figure Initial Series glyph, 18 katun and 4 h'ab, A.D. 400, Belize

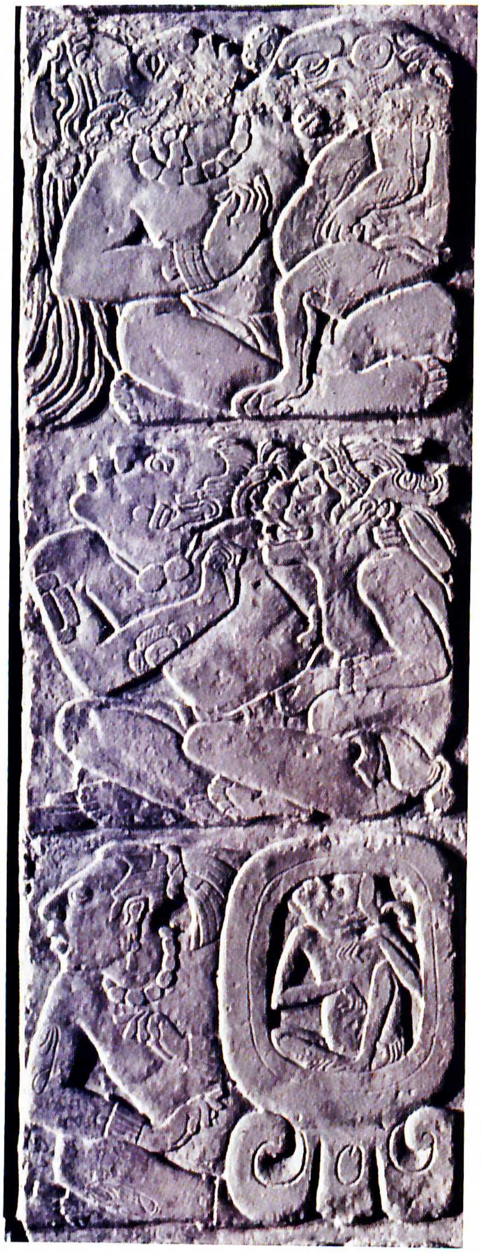
posed by other full-figures texts. The earliest examples, too, arise from a seeming need to highlight and flesh out birds and other beings, particularly those associated with units of time. Caracol Stela 20 arrays a set of birds corresponding to large units of time, down to a writhing water-snake linked to the year, the *ha'b*—an annual cycle of rains, tied in glyphs to a near-sentient serpent, would intrude forcibly into Maya lives (fig. 68). A feature of these units of time is that they were already discrete and isolatable. Most likely, they were never read as continuous context but needed contextualization when read or performed aloud. Other full-figures, as on Copan Altar 41, thrust the full-figures to the most visible, front surface, apparently for bolder display.

The tabulation of full-figures discloses another bare fact: their pattern is nonrandom. They appear to harass, cosset, or otherwise touch adjacent signs that lack figuration. This may convey the idea of connected signs in a stream of text. On the Summit inscription in Temple 26, syllables are held by full-figure signs; in that same inscription, groups of figured logographs alternate, by strong cadence, with groups of figured syllables.[52] A text found embedded in an eroded part of Copan, the "Corte Block," tumbles along with similar alternations, as does a miscellaneous text from faraway Yaxchilan, in Mexico. In contrast, the full-figures at nearby Quirigua, perhaps carved by sculptors once linked with Copan, gather in nearby unbroken arrays of word-signs. Signs for days, regarded by the Maya as partial to animation and royal embodiment, trend strongly to figuration, as do all records of gods. As David Stuart has proven, this linkage of enthroned time to enthroned lords characterizes many day signs for *ajaw*, "lord." Maya rulers both celebrated time and fused their identities with dominant days. One queen might even merge with time, at the prepotent site of Calakmul, Campeche. The figured day signs veer close to royal portraiture, with the proviso that most sit awkwardly within their cartouche or, as at Itzimte, Yucatan, they occur under royal feet, in the same position occupied by war captives in Maya imagery. Evidence at Caracol, Belize, where completed time wears the torn cloth of captives, implies a more negative shading to the relation between finished time and the temporal properties of kingship. Time can be enthroned but also subjugated, prompting the broader and disquieting reflection that all portraits can both exalt and, in a sense, incarcerate their subjects.

The disposition of figures in the texts pairs off into another marked disparity. In some, including the Corte Block, Altar 41, and 9N-82 bench at Copan and the Palace Tablet at Palenque, the full-figure signs either sit in patient repose, arms drawn up in the posture of submissive courtiers, or gesture in the more relaxed, even

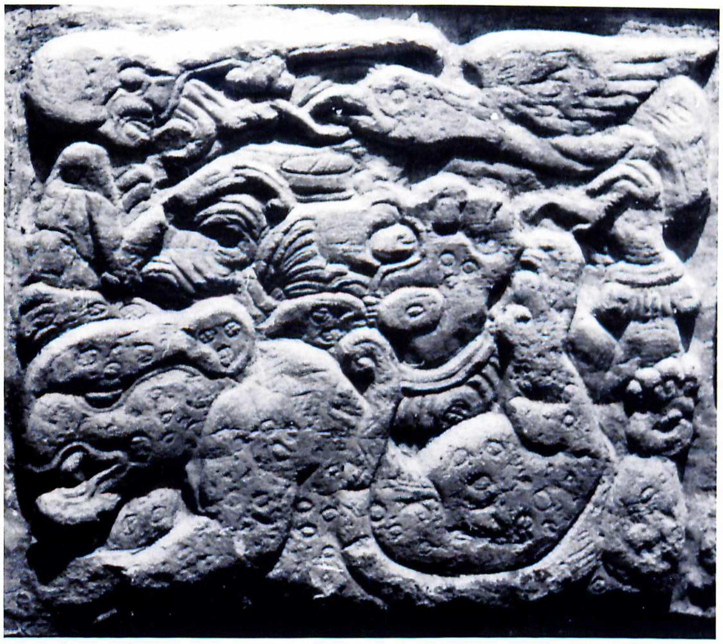


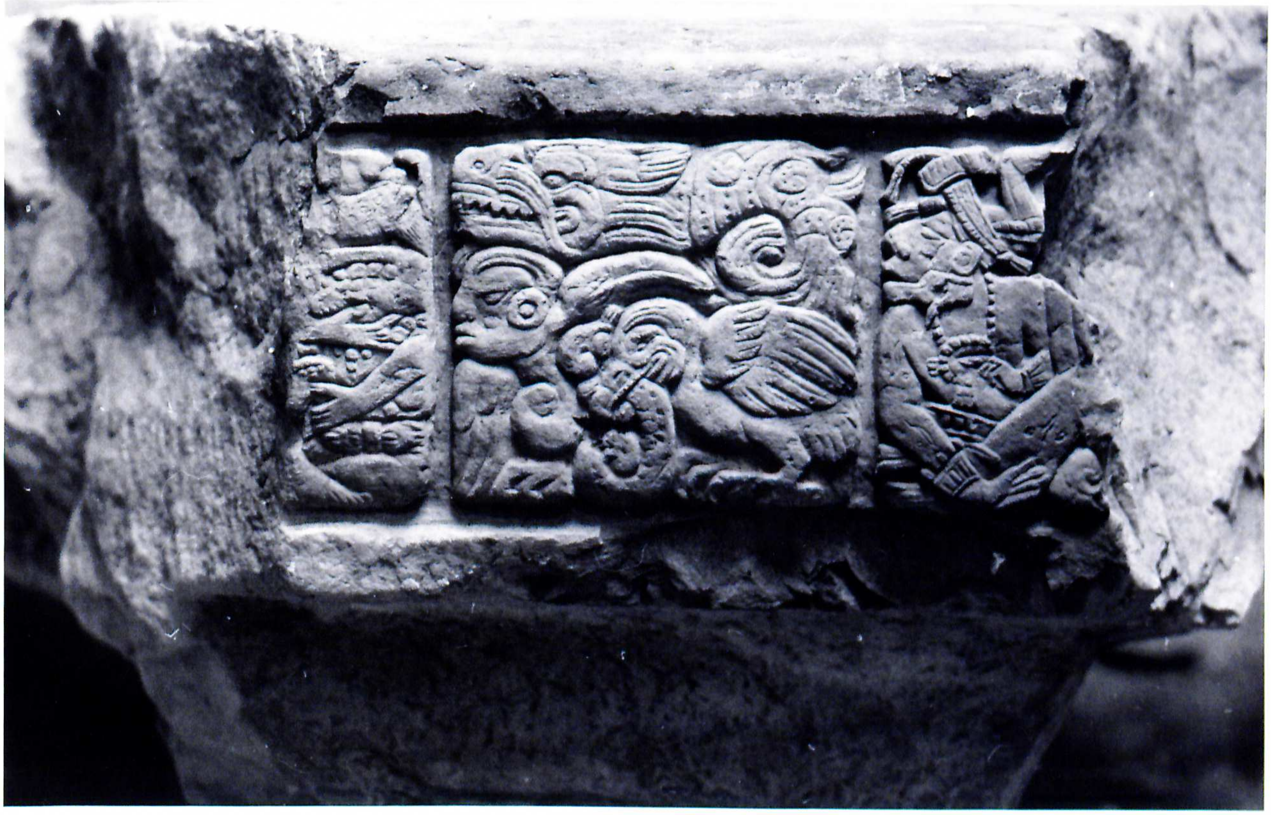
gracious interaction of conversing lords (fig. 69).[53] Most face in one direction, toward the reader's scanning eye. This is relieved only rarely when they turn to face a companion glyph. It is the unusual god who does not appear frontally, much like the images of rulers at court. Several work hard, straining at tumplines or headbands used to carry heavy burdens. Without fail, those burdens lack figuration. In a few examples, the entire event of transporting a load echoes an action of monument dedication. It also binds a preceding glyph to its direct referent, a unit of time or a title, or lashes a pronoun, crucial in Maya grammar, to the noun it serves. A few day signs sit on the laps of their numbers. These steady them with one hand, in a faint hint of affection or erotic attention. The wit is everywhere: a glyph reading *t'ab*, to "raise" or "rise," duly raises its attendant syllable (Temple 26 Summit Text). A syllable on Throne 2 at Yaxchilan reaches up to grab one leg of the bird logograph he is meant to clarify (fig. 70). Presumably, the bird will not get away, although it flaps with heavy effort.



**69** Full-figure glyphs, Palace Tablet: A9-B14, A.D. 720, Chiapas, Mexico

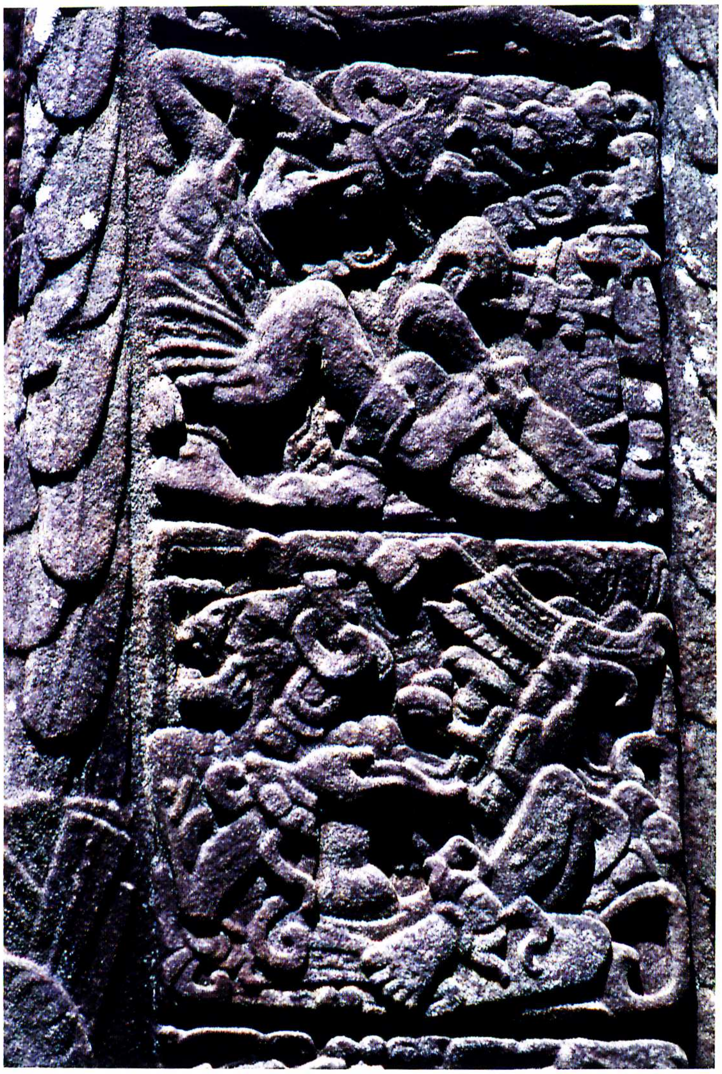
But the more usual pattern is of noisy assembly and altercation. Birds, corresponding to day signs or various titles, cause the most trouble, barely restrained by their companion glyphs, which clutch them while they flap and screech. Maya convention shows that, in dynamic glyphs, found most violently and expressively on Quirigua Stela D (A.D. 766) and Zoömorph B (A.D. 780), figuration is a boisterous affair (fig. 71). Mouths open, heads turn up or face down, crying, calling, and speaking. The more dynamic glyphs show no comfort, no sedate repose. Emphatically, these are not the languorous attitudes of courtiers or kings. They lunge, wrestle, paw, subdue, maybe seduce. In far later codices of the Postclassic period, centuries past the production of full-figured signs, the resting of a hand on a back, although gentle, hints at ardor and coupling.[54] In this light, the hands that stroke the bodies of adjacent glyphs in the Palenque Palace Tablet suggest that contiguous spellings were likened to physical intimacy. When vultures appear, as figured syllables or logographs, they bend over greedily, as though to feed on carrion (Yaxchilan Miscellaneous Text; the Corte Block and Temple 26 Summit Text at Copan; Quirigua Zoömorph B, glyph 18). The bats try to fly or sit back exhausted, their bellies out, arms scrawny. Wings flap weakly.





**70** Yaxchilan Throne 2, full-figure glyph blocks, with bird in name of ruler, "Bird Jaguar III" (left), and a noun (below), c. A.D. 760, Chiapas, Mexico

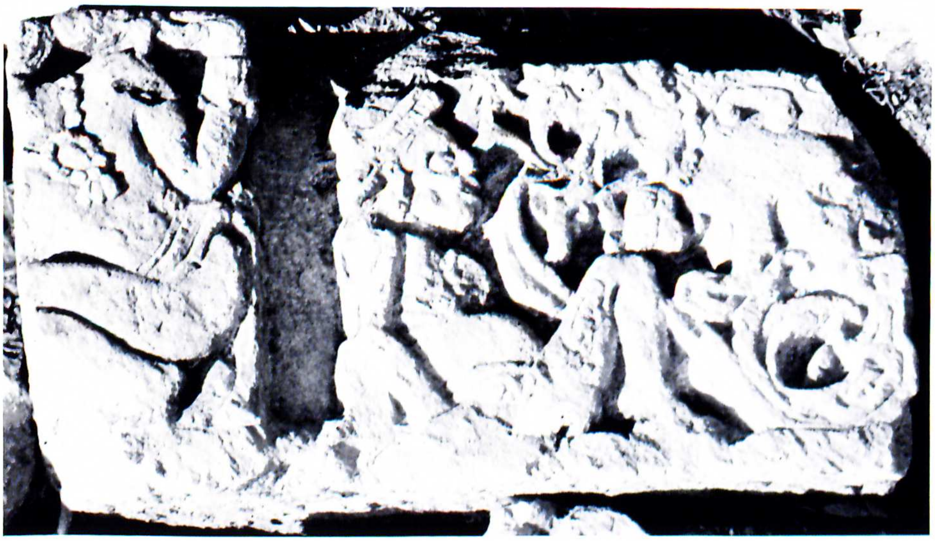
**71** Quirigua Stela D:C9-D12, "0 Winal, 0 K'in," A.D. 766, sandstone, Guatemala



Activity to be sure, this is also behavior best seen as indecorous, unpredictable, comical, and perhaps, in final reflection, a bit dangerous. Some full-figure glyphs within the confines of a glyph block appear to converse, others to look in opposite directions. They may grab the hair of their companion or tug at their arms (Copan Stela D). Going all the way, one month sign on the so-called Harvard Bench at Copan appears ready to mount his day number; nearby, a similar text on the Hieroglyphic Stairway does the same—or is it about to feed? (fig. 72).[55] To the side, a number endeavors to calm or control the water-snake associated with the year, *ha'b;* the gesture and outreached hand are nearly identical to a scene in which such a rite takes place. A few isolated full-figure signs at Copan, especially from

Stela 63 (positions C1, D1, D4), amplify the presence of animals, rabbit, rodent, and a monkey. None, in Maya experience, are completely subordinate to human control or fully domesticated, although humans clearly have the upper hand. If full-figures stress anything, it is, from earliest times, the province of wild beasts and birds, toads, quetzals, song birds, various raptors or consumers of rotted flesh. Elsewhere, in the more extreme examples, the glyph blocks and their constituents are about to get out of hand, their contents ready to escape or fly and claw away. The semantic and phonic layers pile on. On the 9N-82 Bench at Copan, a glyph for censer, possibly read *ch'ajoom*, embeds what are likely to be unread syllabic glyphs, **po-mo** for *pom*, "incense." These clarify meaning but were not read as part of the main sign, indicating that the spellings require attentive study, at levels beyond simply the parsing of linguistic text. The Copan bench seems to revel in its alternation of glyphs that converse and those that face in opposite directions.

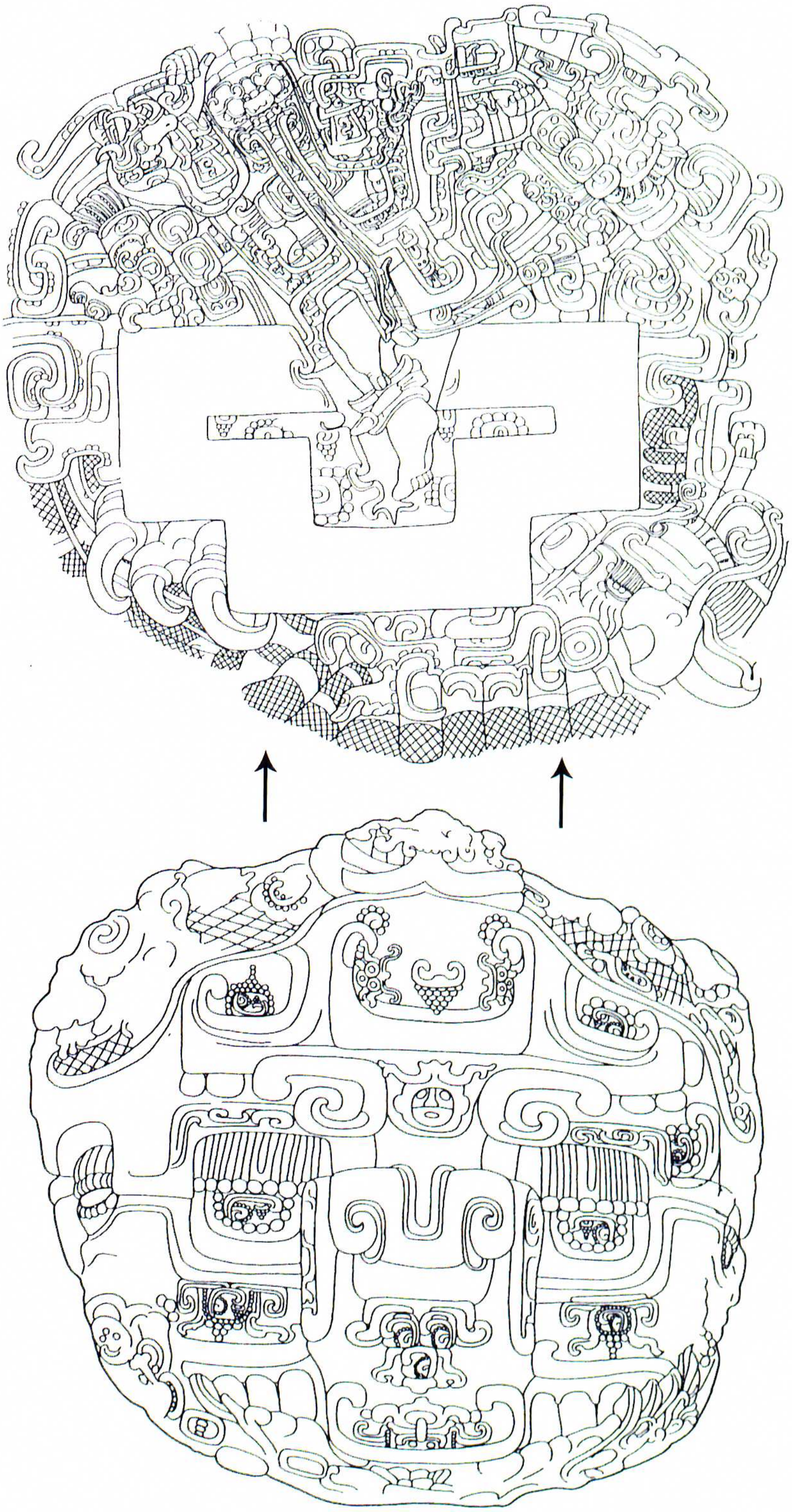
That the concepts underlying the full-figure glyphs were widespread receives support from their broad distribution. But the pattern is patchy: there are few examples in between their zone of greatest concentration. The physical marginality of these cities, in kingdoms skirting others of differing ethnicity, may have encouraged novelty and experimentation. Yet the reason for full-figures is more likely historical and personal. Their limited number suggests a small group of sculptors active for short spans, indulged by their patrons for only a few commissions. Copan and Quirigua shift to extravagances because of their proximity and former amity—that they shared sculptors is not beyond chance. Their time of intense antagonism, involving the capture and death of the ruler of Copan by Quirigua, drove them, perhaps, to



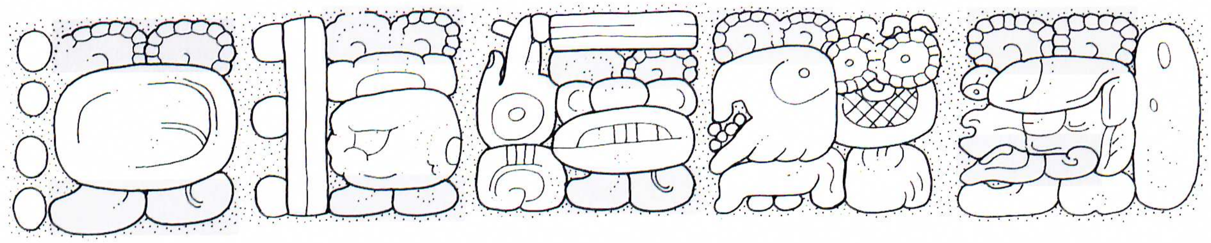
**72** Copan Hieroglyphic Stairway, Step 63, block 590, full-figure scene, feeding or mounting, A.D. 755, Honduras (Peabody Museum of Archaeology and Ethnology, Harvard University) aesthetic competition, resulting in an oeuvre in which both attempted to better the other.[56] The overall span is only a few reigns, no more than a hundred years.

The full-figures are texts that push back at the reader. Veering from respectful attendance on the reader to an explosive probing of limits, they introduce a barely tamed domain of storied creatures into royal texts. If evaluated for their poetic effect, most such inscriptions are formulaic and mechanical in content, a register of days and standard events. In full-figures, the saturation with sound resonates also with the formal oratory of court yet departs mischievously, wildly, from the speech of kings. The oral dimensions of Maya writing are known from current scholarship, which documents purported quotations of speech in texts that murmur within temple sanctuaries.[57] These accord with the sheer vocality of the full-figure glyphs. But the signs also subvert the tenor of exalted, sacred messages. They stamp on decorum with their discordant vivacity. The central questions remain, however: are the full-figure glyphs anomalies, capricious amusements that travel far from the properties understood to typify Maya script? Is their pictorialism a seepage from other forms of representation, an expression of an order in which texts and images entwine or converge by long practice and design? Or is the vitality of the signs essential and fundamental to their character, giving scholars a fortuitous, broader opening into writing that lives? At lower levels still there may be a statement about the innate powers and unpredictable consequences of speech: one is never sure of words and their effects. Absent an overt declaration by the Maya that glyphs talk, breathe, and move, the solid bet is that virtuosity, enlivened words, magical creation, and pictorial infusion play equal roles. Notably, the Ch'orti' Maya of Guatemala understand their speech as primordial, a "first language" or *b'ajxan ohroner*, uniquely efficacious in ritual, the speech of creation and first things. For the Classic Maya, the full-figure signs seem to be beings in many respects. Endowed with selves, they converse with other such signs yet also work for their ultimate masters, the sculptors who carved them and the lords who commissioned their creation.

Yet the process that transforms the texts into massive, obtrusive full-figuration occurs most fully on the massive altars to Quirigua Zoömorphs O and P.[58] These carvings have bearing, too, on the living nature of Maya writing. Dating to A.D. 790 and 795, the altars, known as O' and P', display a violent version of the Maya storm god, Chahk (fig. 73). He swirls in clouds or sparks with celestial fire. Twisting and dancing, his body raises a hand or two, ready to strike with a clutched weapon. Just beneath his body, on both altars, is a stony sign that conforms to the shape of the Maya sign for "wind," *Ik'*. A stylized eagle, read *chan* or "sky" in glyphic writing, hovers to the opposite edge of the altars. By



**73** Quirigua Zoömorphs P and Altar P', showing overhead view, P "breathing out" the deity and wind sign in P' as indicated by direction of arrows, A.D. 795, Guatemala



**74** Calakmul Stela 52 and the suffusion of godly identity in writing, sparks and bloody mouth highlighted, positions A1–G3, A.D. 731, Campeche, Mexico (Museo Dolores Olmedo, Xochimilco, Mexico)

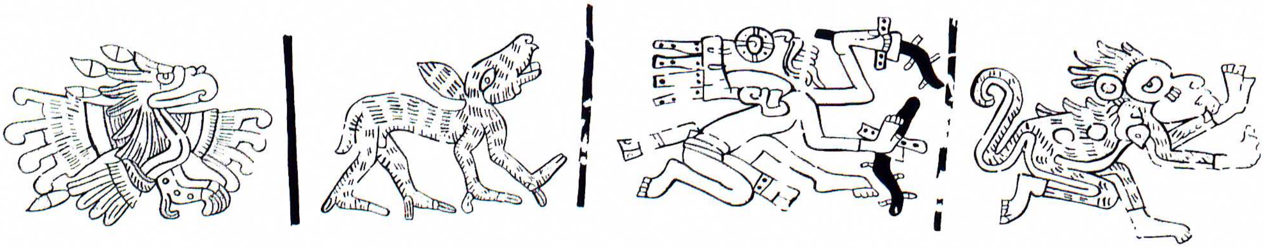
common understanding, these gods materialize as exhalations from the crocodiles reproduced by the zoömorphs. On Zoömorph P, the reptile gapes wide, the ruler appears within. Directly in front of the mouth is the altar, flat, with Chahk exploding outward, away from the king. The sole legible reading of the wind sign on Altar P' is as an element seen *by* the seated ruler in the crocodile. Any other arrangement would violate Maya convention or understanding of correct orientation. The crucial features, however, are the motifs on the altar, the deity, the weapons, the fire, and the eagle as an emblem of the sky. These correspond to the name glyphs of two successive rulers of Quirigua, each named, with minor variations, after this particular version of Chahk. Small differences between the altars suggest that these two lords were featured on Altars O' and P'. One of the kings commissioned the altars and found in them a way to associate with his predecessor. The altars serve, then, as imagery and as full-figure glyphs, the largest yet known.

The play of text and image, their consummate fusion, intensifies in another respect. The disposition of the altars and their zoömorphs presents an account of where the storm god originates. By this reading, they also assert that the name glyphs spill from a sacred source, as breath certainly, as speech possibly. Names and glyphs, gods and depiction join in undivided meaning. The line between writing and dynamic image, between words and living substance, would seem to dissolve.[59] Here, from Maya minds and hands, vibrates the "impossible unity" that troubles aesthetic philosophy. And the vitality was not only intrinsic to the glyphs but infused from other supernatural beings, lending some of their energy. Stela 52 from Calakmul, Mexico, garnishes each glyph in its text with two features (fig. 74). One is a spark-like element associated with a deity impersonated by the ruler on the sculpture. The other forms the blood-eating mouth of the god, now occupying an inscription that vibrates with his presence.

Notably, the Maya were not the only literate people of the region or the only ones to vitalize signs. A curious illustration would be what might be called the "Other Within," an apt description for non-Maya day signs, usually in square cartouches, that appear in some late Maya texts.[60] To the knowledgeable eye, they jar with their sheer exoticism. Others are on widely traded ceramics made out of molds. The day signs run in predictable sequence, according with a universal, doubtless ancient set of days found throughout Mesoamerica. On Jimbal Stela 1, dating to A.D. 879, the day signs are fully-figured, but non-Maya in form. Close to the time of Maya figuration, when longer texts came into being, are those from the Cotzumalhuapa civilization of the upper coastal plains of Guatemala. Non-Maya in all respects, from iconographic themes and representational conventions to format and positioning, they appear as a coherent form of writing at about A.D. 650. Signs sometimes become "actors in complex narrative scenes," perhaps in part because the script, largely restricted to day signs and numbers, avoids verbal syntax in favor of visual action. What appear, deceptively, to be stripped-down dates, load up with layers of reference, operating as proxies for people or gods. Much needed to come from complicit and knowledgeable readers. As an example, "4 Death," a day sign, repeats on paving stones on elevated causeways at Cotzumalhuapa. The burden of understanding these enigmatic notations would fall heavily on viewers who bring background information. Fuller explanations lay elsewhere, in human brains. Like Altars O' and P' at Quirigua, the Cotzumalhuapa glyphs fasten to speech or formal oratory. Scrolls are rimmed with descriptive elements, the fire of conflict and aggression, along with the flowers of eloquence. Some day signs offer cloth, food, or treasure, perhaps in dowry or gift exchange by figures nearby.

At close to this time, seven hundred kilometers to the west, day signs from local writing in Oaxaca, Mexico, also extend arms, some holding cloth or weapons.[61] Signs appear as separate, physical elements to be lifted by headbands or tumplines around the forehead. This is especially so of day signs denoting a solar year. Known as "year-bearers," weighty yet movable, they occur in certain Mexican sites such as Teotenango, Maltrata, and Xochicalco, all as day signs with a tumpline looping through their cartouches. Most cords float to the side, awaiting a porter. But a rare example, from Piedra Labrada, Guerrero, now in the Museo Diego Rivera Anahuacalli, shows a kneeling carrier. Dating to the final centuries of the first millennium A.D., he grasps a stick that doubles as a walking support and fire drill for the ceremonies that inaugurated one year and began another. Another reveals more precisely the identity of the bearer: the current year, named "rabbit," holds its predecessor, "house." The signs that have tumpline but no porter may signal a current year, not one that has just passed.

A final example, even farther west, now in the Basin of Mexico or environs, is the set of day signs in the Codex Borgia, circa A.D. 1500 (fig. 75). Most appear as



75 Full-figure day signs in the Codex Borgia, p. 19, c. A.D. 1500 (Museo Borgia P.F. Messicano 1, Bibliotheca Apostolica Vaticana)

heads of larger beings—a deer for *mazātl,* "deer," an eagle for *cuāuhtli,* "eagle." That body part alone is sufficient to identify the creature. A snake, *Cōātl,* however, needs its coil and tail, as does another reptile, *Cuetzpalin,* the lizard.[62] Adjacent in a list of day names, they appear in full-figure form so as to enhance the contrast between them. In other pages of Codex Borgia, the process of animation, so familiar from Maya glyphs, acquires velocity: the day names present a front leg, as in a dog, *Itzcuīntli.* Then, in a series of four pages, comes a parade of day signs with full bodies. The decision to full-figure so elaborately has an unclear motivation. Sacrificial in tenor, the pages highlight stabbed and decapitated bodies, broken trees that bleed, and a scatter of diced snakes. Perhaps the intent was to invoke the days as participatory presences. What seems more clear, however, is that figuration was an available resource, implicit in the heads that could tentatively sprout a leg, then the full flourish of a body. Aztec sculptors drew on similar ideas. Several sculptures from the late fifteenth and early sixteenth centuries depict a creature called an *ahuitzotl,* "water dog." Resembling an otter, the mythic canine displays a tail like a human hand. In Aztec belief, it summons victims with a childlike voice, and then, after drowning its prey, extracts their eyes, fingernails, and teeth. The animal happens also to name the Aztec emperor, Ahuitzotl, reigning 1486–1503. A three-dimensional image of the creature may, from its approximate date, refer both to the monster and the ruler.

In sum, full-figuration operates as a subset of animation and pictorial vitalism. Most signs contain the promise of full-figuration, by two routes: a materialization as a general human body with the ornaments of courtiers; or in fulfillment of their separate natures, as, for example, a bird with wings, a toad with scaly body. But the Maya glyphs differ markedly from those found elsewhere. Aztec and other examples are always word-signs that, with few exceptions, refer overtly to the depicted object.[63] A full-body armadillo records the word for "armadillo." When hands reach forth from a sign, as in Oaxacan or Cotzumalhuapa writing, it is as meaningful action, crucial to understanding the message, not as glyphs of independent urges, reaching forth to paw or grab companion signs. The larger question of their innate vitality—the reason for their tendency to figuration—relates more broadly to the pictorial world around them. Most likely, as suggested before, images were conceived as living, and not as counterfeit if clever reflections of life. Though accompanying texts, the sculptures might appeal by direct address to human readers, as much a part of their social world as other beings. There had been earlier mention of their deactivation, by mutilation of the sensory organs—few portraits of kings survive without such damage. No such injuries are known of glyphs, but the shared world of figured bodies, as active as any portraiture, points to a parallel belief in writing that lives. The words must have counted. No ordinary texts, they declare lasting truths about Classic Maya lords. Their figuration, springing to action, invigorates sacred utterance.

## Conclusion

For the Classic period, things that live fit no schemata from the basins of South American or northern forests discussed at the outset of this chapter. There is no symmetry or equivalence of relational force: puny and delicate, humans still dominate or assert their domination. People write the glyphs, summon those graphs to animacy, carve energized portraits meant to last, and bring or capture vitality in stones. By Classic evidence, they control by means of hard-acquired knowledge. Humans offer and take, they are the masters in these unequal dealings. Even gods like Chahk bend their knee and fold their substance into stone. If the ancient Maya fail to conform to other views of animism—the imputation of life or sense to things—then the schemata would seem deficient. What cannot be denied, however, is this: the Maya worry less about harnessing surges of energy than preventing their dissipation, of keeping them entire, complete, and useful. Things that live can be made to lean strongly to hard permanence, in a land where human existence is short, its grip uncertain. For the kings most of all, they found ways to store and sustain life in the durable substance of shell and stone.

# A Beauty That Cannot Die

## 4

All the Flowers of the Spring, Meet to perfume our burying.
—John Webster, *The Devil's Law Case*

IF THE PLAY of materials and the investment of life concerned the Classic Maya, so did another motivator: the search for beauty. But there is a problem. Beauty is central to human experience, yet, in general, no one knows quite what it is or what to make of it. To one philosopher, beauty "remains a bit of a mystery, forever a step beyond anything I can say."[1] Inducing longing and desire, it asks to be enfolded, possessed, and judged. The beautiful also implies the ugly. Attraction contrasts with repulsion, its very opposite. Beauty draws in, the disgusting pushes away. In between, prompting little response, are the unremarkable and routine.

For all their importance, the predicates of beauty—the features perceived to be deeply appealing—evade any universal agreement. They result from, and help to establish, "smaller societies" or "groupings" of people who find beauty in the world. From these assemblies arise the local canons of aesthetic merit, varied claims to usefulness as a criterion of beauty, and a search for the exemplary along with the consistent and expected. Where society is invoked, sociology intrudes, too. For the sociologist Pierre Bourdieu, there is no "pure gaze." No one stands outside history or the positions of privilege that determine beauty, its making, acquisition, and judgment. That humans delight in pleasing things characterizes the species. They attune everywhere to the quality and intensity of that experience. They discriminate. But the claims of Western philosophy, in active colonization of other thought, command a response from those born far away and long ago. They knew nothing of Plato, Kant, or Arthur Danto. They did not sign on to European or present-day proposals for defining, ordering, and evaluating the good and the commendable.

Covered bowl reproducing basket coils, Yaloche Cream Polychrome, El Peru, Burial 24, c. A.D. 400, Guatemala

Staking out a theory, Alfred Gell suggests that this work is hardly worth the trouble. Aesthetics should fall to the "critic" fussing over "interior mental acts."[2] Anthropology, where some of us live, should stick to "social relationships" rather than "Kantian high-bourgeois aesthetics." Bunkum, I say: what was prized, valued, admired, and reinforced speaks to the core of ancient motivation, even if mediated by "social identities and differences." This was especially so in the courtly setting of Maya imagery, subject to the competitive judgment introduced in Chapter 1 and its shifting foci of refinement. In any case, with humans, all conceivable acts have an "interior mental" origin. The confident hope is that assays of visual merit, desirable line, and pleasing form conform to recoverable principles.

There is no denying the difficulty of finding principles. Talking to the Classic Maya is an impossibility, much less asking them about aesthetics. In later languages, including those from the early Colonial period, "beauty" concerns some property of being "good," *utz.*[3] In Colonial Tzotzil, from Chiapas, Mexico, a relevant term is *t'ujum,* from "clear and without sediment, elegant," but built on a word for chosen or winnowed, the best wheat or rice (neither crop very ancient for the Maya) separated from the flawed or mediocre. Yukatek Maya of about the same time emphasizes the qualities of polish or smoothness, goodness, or a sweet sentiment of contentment, *ki' oltsil.* Colonial Tzendal of Chiapas, Mexico, weigh in with *utzilel,* "to look good." And an unrelated term for Ch'orti', a close relation of the language of the Classic inscriptions, treats "beauty," *ban,* in terms of "goodness" and affirmation but also "usefulness," an efficacy of "remedy," and an expression for polished manner and behavior. As a word, *utz* in its various permutations is exceedingly ancient, from the beginnings of Mayan languages. But its appearance in glyphic texts is limited to the Postclassic codices, where it refers to the "goodness," *yutzil,* connected to gods in certain auguries, and, in the Classic period itself, to use in mythic scenes from painted ceramics. Other terms come into play, *lekil,* "polished," like shiny stone, or even *pok-baijel,* "cleansed," "purified," both, too, from Colonial Tzotzil.

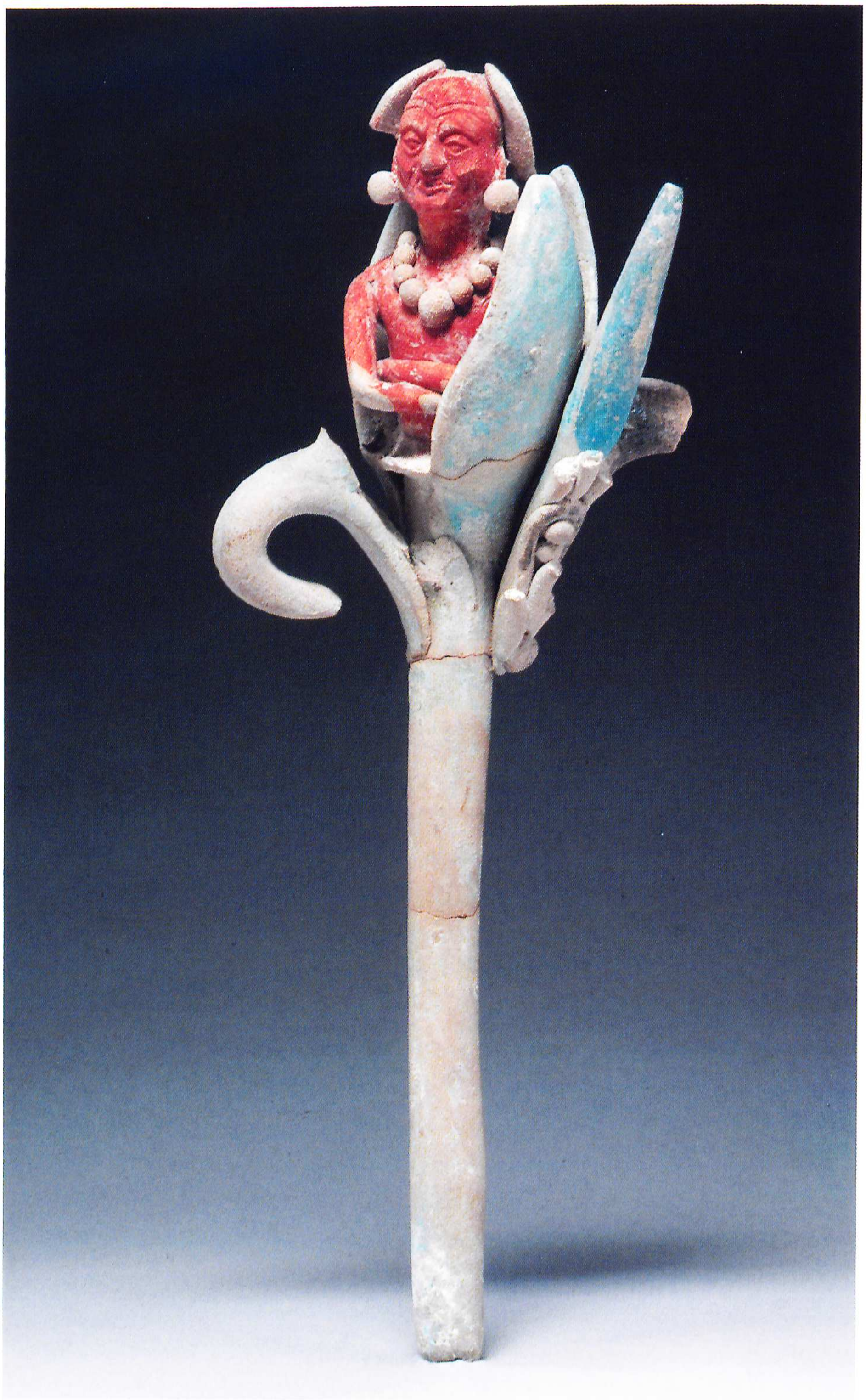
More direct clues come from what the Classic Maya valued: anything green, jade-like. The value of such stone can be surmised by its concentration among elites. They shaped it into jewelry, replaced dead flesh with surfaces composed of jade mosaics, and, with much pain and bother, inserted inlays of this material into their teeth. The cold calculation of an economist would confirm why the material was esteemed. It is scarce, if not in its home area of the Motagua River valley of Guatemala, also obdurate to work, each object the result of much lavish human sweat. As pointed out in Chapter 1, even a modest piece would require long hours of fracturing, sawing, drilling, grinding, polishing.[4] Only a small quantity of jade would be worthy of working and transport, yielding, for the Classic Maya, a verdant surface that contrasted with the translucence cherished by earlier peoples in Mesoamerica. Limited supply and high demand both equate to a coveted good, a clear token of the desires that lurk behind most economic theory.

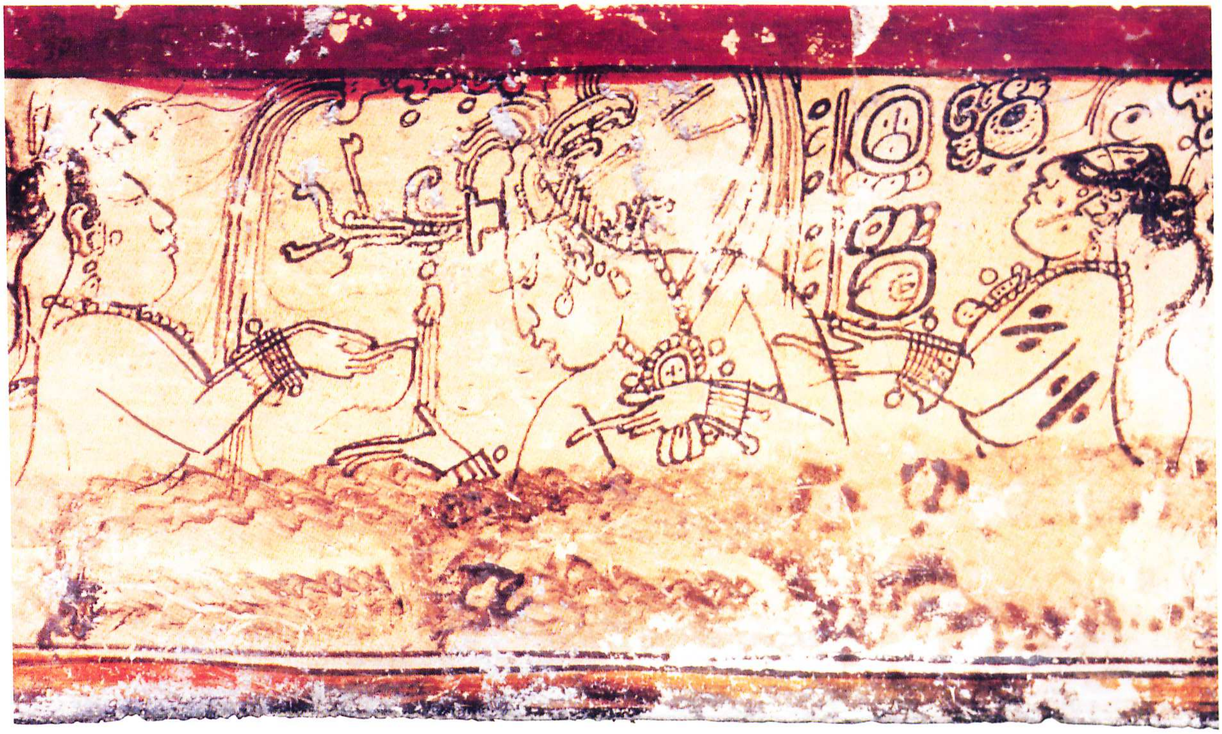
The logic is irrefutable. Yet, as explained in previous pages, it bypasses an essential element of Classic Maya beauty. The overriding focus is on the ephemeral, the growing, and the life-giving, a green-blue of fresh growth, *yax* in Classic Maya, whose secondary meanings, not coincidentally, extend to "new" and "first."[5] The great ceiba tree, thought to grow centrally, was called the *yaxte'*, the "green-blue tree," its origins probably going back, by millennia, to a green maize plant at the center of a cultivated field.[6] The color of water to nourish crops, *yax* is often, in Classic times, slathered on figurines, ceramics, and beads in the form of Maya blue, a vivid pigment of complex manufacture (fig. 76). The green-blue of the Maya glimmers off the quetzal plumes worn by kings and presented as tribute. The attraction here is not only to color but to its visual play, its sheen, its near wetness, dew- or rain-soaked, an intense saturation that might also shift, with light, to other tones. As captured by admiring views in paint, young bodies are likened to that most elegant of dancers, the supple Maize God. No great imagination is needed to see his graceful body in a growing maize plant. Swaying to warm breezes, he rises up from the split ground—the identification of a rooted plant with dance hints, too, at the stately nature of this performance.

Unique among Classic Maya deities, the Maize god neither dominates nor governs but finds his way into human maws, an offering that nourishes the body and renews itself seasonally as a source of food. Born as a young adult, never aging, he is the chief contributor to human flesh. Humans in turn offer their own flesh in covenants with gods, eating plants and animals, to be served up as morsels for higher beings.[7] Yet, with fine delicacy, the god's passage down the gullet is never shown, only his growth, dressing, dance, watery journey, death, and rebirth (fig. 77). These concerns shift perceptibly in Postclassic times, when gold, copper, and turquoise displace it from aesthetic centrality—a different kind of sheen, the metallic, comes to dominate the Maya aesthetic. Classic imagery abounds, too, with flowers and tags to their thick fragrance. These hint at paradise along with the fragrant bodies and speech of elites. The Maya show such emanations as looping curves, as part of their depiction of the ephemeral and invisible. Things that pass are asked to stay a while.

It would be mistaken to dislodge other colors or materials from prominence—a sparkling specular hematite, dark red like venous blood, or the lighter but still sanguinary reds of *Spondylus* shell.[8] All bear rich associations. Even yellow promises

**76** Maya blue on figurine, Jaina-style whistle, c. A.D. 700, Campeche, Tabasco, or Chiapas, Mexico (Dumbarton Oaks Research Library and Collection, Washington, D.C., PC.B.559)





the bounty of harvest: now is the time to eat, the corn is ready to consume. Nor is all aesthetic appeal on the perceived surface, although that area is, in Ch'orti' Maya and other languages, a dominant residence for much Maya meaning: where signs are read and deeper states detected. There is quality of line, perhaps painterly in origin, along with form and its ocular play with light and shadow. The thoughts on skeuomorphs in Chapter 2 reveal that many processes, many conditions, occur all at once, in simultaneous operation, pushing along in similar directions. Further, the stress discerned thus far is not only on color or some other property, but induration or even lithification, on making harder, on housing or capturing spirits, of intangible but active substance, in workable material. Green-blue is a democratic color, available to all. Plants grow aplenty, water is there to drink, blue-green air to breath. In deference to Bourdieu, however, that is not true of its crystallization in stone or the quetzal plumes collected and worn by royalty. Elites hoarded these green or blue things. Taking a commonplace, appreciated by all, they sequestered it, in purest, most enduring form, to limited or restrictive use. The process of appropriation and reworking was pervasive, a governance likened to tending a field and the reception of regalia to holding an ear of corn. A unified aesthetic, bridging classes, fell into step with the need to differentiate people. But, for lords, the beauty could

77 Watery journey or death of the Maize god, c. A.D. 700, Guatemala or Campeche, Mexico

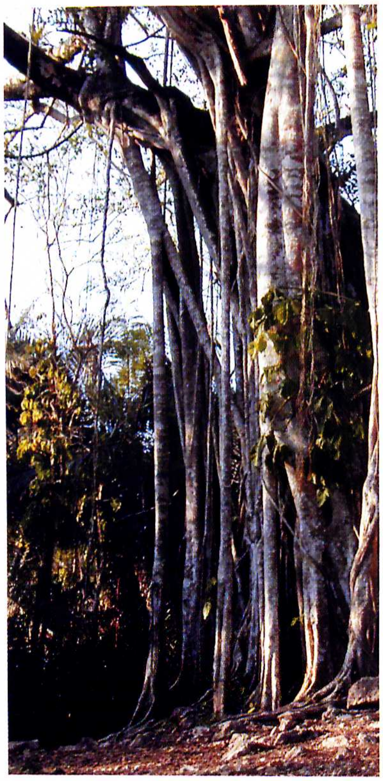
not perish or disappear. Every effort of peasants or mere townsmen was trumped by royal versions of the same: kings might have lived longer than ordinary folk, and so did their things. These precious goods underscored their political status, with direct value. They were worn and transferred within a material idiom of respect, depending on the identity of the giver and the recipient. The mere recollection of them in blue paints enhanced the allure of objects daubed with pigment.

Hardening seems to have had intrinsic merit: Colonial Tzotzil tied it to heightened strength, *yijub*, an aspect of aging, too, with no attendant weakness.[9] According to one source, Colonial Yukatek employed no fewer than twenty-two separate terms for "harden," ranging from associations with strength (*chich*), to harden like clay or fruit (*kuymal*), the shifts in clay an especially common trope (*t'ahlak*, too). Among the toughest stones known to humans, close to 7 on the Mohs scale of hardness, jade endures longer, by magnitudes, than the chlorophyll of growing plants. Among the lessons, too, from recent glyphic decipherment is a central fact: that, to the Classic Maya, possession mattered for most objects of renown and value. Someone commissioned them, made them, held them, or gave them away. It was not enough to admire. The lords needed to own, if only to accent any future acts of largesse. A gift implied the right to give, and glyphic tags of original ownership tempered generosity with reminders of social debt.

An aesthetic convergence of various rarities and costly imports involves a delicious paradox, enthralled with a larger process of transformation. The most frail and ephemeral is now the most enduring. The convergence is layered, varied in reference—cuing both this and that, and many other things besides, an efficient packaging of all that seemed lovely and desirable. It then engenders other recursive invocations of beauty. It folds back to liken the ephemeral to the permanent, the lasting to the fleeting. The broad reference of *yax* in Mayan languages, ranging across all manner of greens and blues, enhances the possibility of such concurrent meaning. So, too, does its capacity for wide allusion, much like the metaphor and simile of Maya and Mesoamerican oratory. In jade masks for the dead, the body achieves, as noted in Chapters 2 and 3, the adamantine properties of divine beings (fig. 78). Fired clay will outlive, too, any basket, leather, textile, or wood. A stone carving may evoke flesh, yet its duration carries a portrait forward, long after its original has rotted away. As always, the hardening of a soft, perishable world is for a small group, those of imperishable memory, the kings, lords, and ladies of the Classic Maya.[10]

**78** Jade mask, Janahb Pakal I, c. A.D. 683 (Instituto Nacional de Antropología e Historia, Mexico)

There is cyclic renewal in the forests of the Yucatan peninsula. Some plants drop leaves as others grow them, and the essential attribute of a maize kernel is that it



**79** Strangler fig

comes from an expired plant. Dormant yet, when replanted, bursting to age-old vegetal dance, maize is always different, always the same. Then the reality of wear and tear in the tropics: rapid decay in a region drenched by rain, cracked by sun, mildew everywhere, with special pungency in the rainy season, creates a world in which the works of humans require ceaseless upkeep or careful storage for them to endure.[11] The struggle is not winnable by any standard ploy. The very biota that exemplify life strive to attack it. Most Maya books were made of substance from a tree, the strangler fig. Seeking the high canopy, it parasitizes and kills its host plant (fig. 79). Maya ruins themselves are penetrated by roots that destroy their fabric yet also hold them together.

The Classic Maya are not alone in their response to transience, their attraction to vegetal growth and the meanings it conveys. For humans, change is the corollary of life, part of a dread narrative with no hope of escape. A wrinkle reproaches. More is to come, much more. Stone itself wears away with time and the elements. The Egyptians, through harper's tales and elaborate material equipment for the dead, clearly paid attention to the problem.[12] The memento mori of the Middle Ages and later project a steady revulsion with unstable flesh. Those "practised in dying" must still have needed admonishment to prepare for the inevitable. Adamic sin infected the world with death and the burden of human passage, transformation, and judgment. In the eschatology of the time, heaven alone offered a static incorruption, an ultimate denial of time and its physical exactions.

For early modern Europe, vanitas paintings imply a comparable fragility. Bubbles burst, flowers wilt, animals lie gutted, and, as hinted by a skull or dreaming person, living in their false reality, people will also rot.[13] The combination of beauty with bodily transgression and disintegration was deliberate, asking the viewer to consider the Final Days and the things that truly mattered: "Until now," says a dead king to a living lord, "you were so pure and perfect; however you will rot before the end." To top it all, some artists and poets in nineteenth-century Europe marry Eros to Thanatos, concocting a physical love that transcends death. Oriental traditions are varied, but some embrace the transformation inherent in life or compare unfavorably the passing, blossom-like beauty of women to the tree-like endurance of the scholar. Buddhism, widely influential, stressed the sufferings of the world. From Japan come the horrific images of the *Scroll of the Nine Aspects of Decay*, circa fourteenth century—and the search for spiritual alleviation for such pain. From the

Heian period on (A.D. 794–1185), evanescence had its own special appeal, being one of the prompts for aesthetic satisfaction.

Closer to the Maya is the fifteenth-century poetry of the ruler of Texcoco, Mexico, Nezahualcoyōtl, who keened for the pleasures of a life that cannot last: "Will they come once more, perhaps they will live again?" or "Though it be jade it falls apart, though it be gold it wears away, though it be quetzal plumage it is torn asunder." And then, in hope: "At last my heart knows it: I hear a song, I contemplate a flower.... May they never fade!"[14] Several scholars doubt that this ruler actually composed this poetry or that the songs did anything but serve as expressions of late Aztec imperialism. The chants, probably meant to be performed aloud, gloried in life but also in the terrors of the battlefield, as an "impetus for excelling in battle." Such instrumental views of poetry are, however, both unsubtle and, to me, unpersuasive. What seems more clear is that, for the Aztecs, beauty glinted in clashing flint yet found itself, too, in ephemeral things evoked and revivified in song or depicted more permanently in stone or books. Beauty arose from apparent contradictions, the material and the immaterial brought together, their differences smoothed out and made consistent by art.

Grief, elegy, a yearning for other states: these emotions and poetic dispositions surely moved the Classic Maya. But their emphasis pointed more openly to the miraculous. They saw that a transformative power, arising from skill, magic, and mystery, could recall a delightful thing but also alter it, offering a new shape that both replaced and *was* its own original. The many caches of broken pots, figurines, flutes, even jade and shell, suggest that, for them, creation also existed alongside destruction. Most representation and evocation—a basket or textile reproduced on a clay pot, a jade that encapsulates lively growth—would seem to show, by such presence, an actual or real absence. To some sights, wicker, thread, and life itself are not there. Yet, to Maya thought, the acknowledgement of transience did not result in resignation or a crisis of disbelief or a longing for different destinies. In a brief period, the middle of the first millennium A.D. or so—a time of maximum political competition, aesthetic production, and courtly expansion—they devised a different path. By craft, by art, decay was overcome, life stabilized, fragrance captured, beauty fixed and hoarded. Voice and vital oratory, too, found a home in stony form. At last, fragile things achieved a hopeful permanence when humans bent matter to will.

# NOTES

## Chapter 1. A World That Matters

Epigraph: Ovid, *Metamorphoses*, translated by J. Brooks Moore (Boston: Cornhill, 1922), 4 (Book 1, lines 24–25).

1. Shumaker, Walkup, and Beck, *Animal Tool Behavior*, esp. 5, Table 1-1. On defining tool use and building: Gould and Gould, *Animal Architects*, 17–18, on relative weight of instinct and instruction; Hansell, *Built by Animals*, which ventures into the natural history of aesthetics, 248–51; Bentley-Condit and Smith, "Animal Tool Use," responding in part to St. Amant and Horton, "Definition of Animal Tool Use," which stresses the flow of information as part of tool use. On more complex tools: Shumaker, Walkup, and Beck, *Animal Tool Behavior*, 108–203. For emphasis that tool use among primates has its own historical complexity: Haslam, "Prehistory of Primates," 308–10. On what is and is not distinctly human: Toth and Schick, "The Oldowan," esp. 299; Whiten, "The Scope of Culture."
2. On evolution: Taylor, *Artificial Ape*, for "natural selection," 8, for anxiety, 202. To a puzzling extent, the author not once mentions the concept of "cyborg," a fusion of the human with artificial extensions, now found in most science fiction. The first use of the term appears to be in Clynes and Kline, "Cyborgs and Space," with full definition on 27. Other widely read sources include Haraway, *Simians, Cyborgs, Women*—"We are all chimeras, theorized and fabricated hybrids of machine and organism," 150, and Kurzweil, *Singularity Is Near*, 299–341. On *Homo faber*, Bergson, *Creative Evolution*, 139.
3. An exhibition catalogue provides a useful introduction to Maya painted pottery: Reents-Budet, *Painting the Maya Universe*. There is no overview of all ceramic production, other than individual monographs, of which an excellent example, with earlier materials, is Callaghan, "Technologies of Power." Recent pottery making among the Maya receives adept treatment in Deal, *Pottery Ethnoarchaeology*; and in the even more comprehensive Reina and Hill, *Traditional Pottery*. A report on lithics is Hruby, "Chipped-Stone Economies"; also, Kovacevich, "Reconstructing Economic Systems."
4. Houston and Inomata, *Classic Maya*, 15–17. Many trained at Harvard, where George Reisner, excavator of Giza, led instruction in field methods; Greengo, "Alfred Kidder," 320. Some, such as George Vaillant, even worked with Reisner in Egypt; Kidder, "George Vaillant," 591.
5. Houston, "Best of All Things." On royal courts: Houston and Inomata, *Classic Maya*, 150–58.
6. Walton, *Drawings of Ruskin*. The edition consulted here: Ruskin, *Stones of Venice*, 39. Still, for a book about stones, Ruskin seems mostly concerned about form. On art historical studies of materials: e.g., Butters, *Triumph of Vulcan* (my thanks to Heather Hyde Minor for this reference); also, Koeppe and Giusti, *Art of the Royal Court*. Other volumes on the "material" world take this literally, as studies of pricing, marketing, and value, even "shopping," e.g., O'Malley and Welch, *Material Renaissance*; also, Welch, *Shopping in the Renaissance*. On black mirrors: Maillet, *Claude Glass*, 47–55. On wafers and other repositories of spiritual energy: Bynum, *Christian Materiality*, esp. 17–25, 128–29, 139–45. Bynum is eloquent about two points, the first being that such concerns may be "periodized" in Medieval Christianity, expressing different motivations or emphases over time. The second is that a materialized spirituality could trouble some devout viewers or conduce to doctrinal error. Yet, logically and insistently, it also drew inspiration from a human Christ who came to earth and left tangible signs of His Presence. Spiritual in origin, His Will—"a power that lies beyond"—acted through matter. Miracles arose in their very idiom of expression. A prodigy jumps categories: it is a statue that weeps, a painted Virgin descending from a mural to clean an abandoned prison, or pilgrim staves that morph into protective swords. Novel attention to those signs and inventive means of invoking them occurred in the later Middle Ages, as a "locus of change" that effected personal transformation through contact with the divine. But Bynum is not, by emphatic declaration, a comparatist. She wishes "to cast some doubt on generalizing that has been done by others," *Christian Materiality*, 32, also 44. On technology and dating: Gräslund, *Prehistoric Chronology*; Rowley-Conwy, "Concept of Prehistory." On the social transit of things, an enduring citation:

Appadurai, *Social Life*. An ethnographic treatise of great perception: Miller, *Comfort of Things*, along with his edited volume, *Materiality*; more specific attention to archaeology is in Meskell, *Archaeologies of Materiality*. History has its own tradition, as in, with éclat, Cohen, *Household Gods*.

7. On material engagement: Streeck, Goodwin, and LeBaron, "Embodied Interaction," 5–7. For a concrete study, Keller and Keller, *Cognition and Tool Use*. On pottery-making and mind: Malafouris, "At the Potter's Wheel"; also, in a move toward "neuroarchaeology" and the brain as a "*bio-artefact* permeated by history and mediated by material culture," see Malafouris, "Metaplasticity," 52. Colin Renfrew wishes to brand this as "material engagement theory," in Renfrew, "Material Engagement." For semblant views, if less neurological in tenor, Olsen, *Defense of Things*. On the demoted human: Witmore, "Symmetrical Archaeology." An ancestral home to such thoughts, with one publication of many: Latour, *Pandora's Hope*. For the political consequences of this, see Bennett, *Vibrant Matter;* addressed, too, in Chapter 3. Writings about things and matter resurge in: Hodder, *Entangled*, esp., 13, 38–39, 58, which underscores the transformative instabilities of matter, focusing, too, on the "affordances" and "active role" of certain materials. These "create potentials and constraints" that form "entanglements" between humans and things, an "entrapment, stickiness and practical messiness" arising from "physical processes," 94, 206. For Hodder, it seems, metaphors of an entwined or gluey nature ascend to explanation. A past enthusiast of the search for meaning and intention, he now detours around cultural detail. His main examples: the distant, mute remains of Neolithic Turkey, the target of Hodder's own excavations; then, as stand-ins for universal process, the very Western evidence of Concorde airplanes, sugar trade in the colonial Caribbean, tennis matches at Wimbledon, cars driven by James Bond, QWERTY keyboards, and the innards of modern cars. For a sensitive Mayanist example of "post-human" perspectives: Normark, "Triadic Causeways," 215–38, and Normark, "Sakbihs," 141–68.
8. Ingold, "Against Materiality," 1–16.
9. Barrera Vásquez, *Diccionario Maya Cordemex*, 416, 536, 581. William F. Hanks calls the process of matching Maya and Spanish or Latin words "commensuration"; see his masterful *Converting Words*, 155, 157.
10. This discussion took shape through conversations with Kerry Hull and Danny Law, who might frame it differently. For an example of a root positional, a CVC-l-i form: Stuart, "Cosmological Throne." On Chontal: Knowles, "Descriptive Grammar," 194–96. On Tzotzil: Haviland, "My Own Invention," 98–99. On body parts and circles: Houston, Stuart, and Taube, *Memory of Bones*, fig. 1.3.
11. On possession in glyphs: Zender, "Morphology of Possession." On *baah:* Houston, Stuart, and Taube, *Memory of Bones*, 58–61. On inalienable possession: Kockelman, "Inalienable Possession," 59. On living buildings: Stuart, "Architecture and Ritual." On the *-il* suffix: Houston, Robertson, and Stuart, *Quality and Quantity*, 11–12, fig. 11.
12. Orly Goldwasser uses Egyptian writing and its semantic determinatives to construct a larger theory of foundational classes in Egyptian thought; Goldwasser, *Prophets, Lovers, Giraffes*. A "prototype" expands to a larger reference, a "duck," say, coming to stand for "bird" or "winged ones," a "sycamore" for a tree. Behind it all, the end of the Predynastic period in the late fourth millennium B.C. was but "one manifestation of the newly created state ideology that initiated a series of towering innovative semiotic demonstrations," Goldwasser, *Prophets, Lovers, Giraffes*, 24. On general comparisons: Aikhenvald, *Classifiers*, 98–124. On animacy in classifiers: Lyons, *Semantics*, vol. 2, 463. For animacy in colonial Chontal Maya, see Smailus, *Maya-Chontal de Acalan*, 214–15, which contrasts *-ppel* for "inanimate" and *-tul* for "animate." On plurality and categories of things: e.g., de Coto, *Thesavrvs Verborvm*, 116. Tzeltal: Berlin, *Tzeltal Numeral Classifiers*. Chontal: Keller, "Chontal System," 265; also, Knowles, "Chontal Maya," 276–85, 366–70. Tzeltal: Berlin and Romney, "Descriptive Semantics," 87, 88. In an unpublished manuscript, Kerry Hull points to the shifting in recent times of numeral classifiers in Ch'orti', with the disappearance of some and the more general use of others, formerly quite specific in meaning; Hull, "Semantic Generalization."
13. To my knowledge, the *pet* glyph, a round sign with a circle within, was first deciphered by Nikolai Grube in the late 1980s; see also Keller, "Numeral System," 261. Round objects are held by scribes on Kerr #1180, with an accompanying verb, **PET-ta-ja**, *pehtaj*, "it is rounded." Xcalumkin Lintel 1, position B1, similarly records **PET-ta-ja** to record the erection of the sculpture. On *tz'it:* Knowles, "Chontal Maya," 276. The *tz'it*, deciphered by David Stuart, appears, among other places, on Piedras Negras Stela 1, position C14. For unusual numeral classifiers in texts: Stuart, *Phonetic Syllables*, 11–12, fig. 17; Stuart, *Temple XIX*, 92, fig. 64. The classifier has the sense of distinct stones, and applies also to "eggs." On Ch'olti'an: Robertson, Law, and Haertel, *Colonial Ch'olti'*, 191–96. On the linguistic content of glyphs, see Houston, Robertson, and Stuart, "Language of Inscriptions."
14. Heidegger, "Origin of Art," 659: "Form means here the distribution and arrangement of the material parts in spatial locations, resulting in

a particular shape, namely that of a block.... Form as shape is not the consequence here of a prior distribution of matter. The form, on the contrary, determines the arrangement of the matter." On Descartes and others: Robinson, "Substance." On debates about things and objects in philosophy: Bogost, *Alien Phenomenology*, 35–59, and Harman, *Quadruple Object*, 118–43. On "material" and its etymology: Watkins, "Indo-European," 2113. Isidore of Seville (c. A.D. 560–636) knew of this etymology and its links to "mater," explicable as something "fertile and capable of becoming," Bynum, *Christian Materiality*, 231. On Mauss, the standard source is Fournier, *Marcel Mauss*.

15. On Mauss's views of "substance": Allen, "Category of Substance," 177. On the material embeddedness of color in Mayan languages: Stephen Houston et al., *Veiled Brightness*, 18–19; for shifting colors, same volume, 21–22.

16. For a rare survival, see Stuart and Housely, *Wooden Figure*. On *te'*: Kaufman and Norman, "Proto-Ch'olan," 132. No precise count of *te'* in the inscriptions is available—with new discoveries of texts, the number changes yearly—but Eric Thompson accorded it a high designation in his catalogue of signs (T87), an indication of relative ubiquity; Thompson, *Catalog of Hieroglyphs*, 446. In a personal communication, John Robertson emphasizes that *te'* as a classifier of numbered things is innovative to the Ch'olti'an branch of Mayan languages [February 2012]. Its earliest usage in the glyphs appears to be with units of time. Only later does it apply to other things, like lords, youths, or roads. On Tzotzil examples: Laughlin, "What's in a Name." For the related language of Tzeltal, see Berlin, Breedlove, and Raven, *Tzeltal Plant Classification*, 124–28, 160.

17. On Tzeltal: Berlin, Breedlove, and Raven, *Tzeltal Plant Classification*, 124.

18. On Tzotzil: Breedlove and Laughlin, "The Flora," 149, 173. On the *Popol Vuh:* Christenson, *Popol Vuh*, 89, 194; also below, Chapter 3. On sap: Laughlin, "Poetic License," 102, 106, Tables 1–3.

19. Taube, "A Classic Maya Entomological Observation," fig. 2. On Pakal's ancestors: Robertson, *Sculpture of Palenque*, pls. 174–200.

20. Explored in Houston and Martin, "Mythic Prototypes."

21. For thorough exposition, see Martin, "Carved Bowl"; also valuable, Martin, "Cacao in Maya Religion." Other supernatural trees, said to be in the act of sprouting or germination, are mentioned in the Center Tablet of the Temple of the Inscriptions at Palenque, in positions A5, A6; Robertson, *Sculpture of Palenque*, fig. 96.

22. For Maize god acrobats, see Taube, "Field and Forest." On the *yajawte'* title: Martin, "Preguntas epigráficas," 110–13. The sign in question is always the word-sign **TE'**, not a syllabic **te**. For epigraphic reasons, this indicates that the expressions must relate to "wood" or "tree." Captives, for example, appear to have been called the *ehte'* or *ete'*, "tooth-tree" or "tooth-wood" of their captors. Other such titles include the enigmatic *Aj Ju'te'* expression deciphered by Marc Zender. The reading is clear, as is its reference to wood, but not the overall meaning.

23. Yaxchilan Lintel 10, position A3, refers to a place linked to *ch'uhte'*; *k'ante'* occurs with another, probable place name on Yaxchilan Lintel 23, position G2. For "cedar" as "god-wood" or "holy-wood" (*Cedrela odorata*), see Laughlin, *Great Tzotzil Dictionary*, 371; for *k'ante'* as "Madre Cacao" (*Gliricidia sepium*), see Wisdom, "Chorti Language," entry 608. On *patah:* spelled **pa-ta-ha**, appears in a royal mother's name on, among other places, Bonampak Stela 1, position J1; see Mathews, "Dynastic Sequence," fig. 3; for *patah* as an ancient term, see Kaufman and Norman, "Proto-Cholan Phonology," 128. On trees at Chichen: Angulo Villaseñor, "Conceptos generales," 1–39, láms. 5, 6.

24. Stuart, "Ceiba Tree."

25. Thompson, "Canoes and Navigation," 71. For paddles: K1247 in the Kerr database of rollout photographs taken of Maya vessels, captions reading **u-TE' wi-chi**, by mythic beings holding paddles. On ceiba flowers: Zidar and Elisens, "Sacred Giants." On cotton: a fragment of a jade celt for a belt, K8749 in the Kerr database, shows a quetzal bird in his cottonlike nest; to the side, maybe a delightful poetic couplet, is a reference to a macaw, *mo'*, and his "house," *naah*. Alternatively, this is the name of the lady's family, with ties to lordship of the "Macaw-house." The **no** syllable is dotted with the textural convention of cotton, its lumpy outline a reflection of this soft material. The syllable derives from *nok' (the asterisk indicates a reconstructed word), "clothes" or "cloth," Kaufman and Norman, "Proto-Cholan Phonology," 127. The first study of the mythic crones is Taube, "Birth Vase," 652–85. Remarkably, as Taube points out, the Classic Maya concept was like the Fates or the Nordic Norns, who used threaded spindles to calibrate human life spans. The Maya crone is both midwife and, wise with medical knowledge, the nurse near the deathbed. For kapok or ceiba fluff in mattresses: Adams, *Río Azul*, 53. On pine wood and its depiction: the **ta** syllable comes from the term *taj, "pine," in a standard process by which glyphic syllables derived from words lose their final consonant or semi-vowel; Kaufman and Norman, "Proto-Cholan Phonology," 131. Examples of such marking occur on Cancuen Stela 1. See also K1229, K9092; the convention appears also in the hybrid Maya-Mexican productions of the Cacaxtla murals, which show the *taj* sign in arrow shafts; Helmke and Nielsen, *Writing System*, fig. 19.

Animated agave plants occur on K1384 and K1882 in the Kerr database; both are "codex-style" vessels from c. A.D. 750, made on the border between northern Guatemala and southern Campeche, Mexico.

26. These are at San Bartolo, Guatemala: Saturno, Taube, and Stuart, *San Bartolo: North Wall*, foldout; Karl A. Taube et al., *San Bartolo: West Wall*, foldouts, and on fig. 34c. An early example of the smaller version appears on Uaxactun Stela 26, position B8; the monument is now on display in the Museo Nacional de Arqueología e Etnología in Guatemala City. The war scene is on K503 in the Kerr database.

27. Reconstructions of terms at this approximate time include: *ch'ajan, "rope"; *xan, "palm." For secondary products or further uses: *ab'äk, 'charcoal'; *si, "firewood," (Kaufman and Norman, "Proto-Cholan Morphology," 115, 119, 130, 136). For Bonampak: Miller, *Murals of Bonampak*, pls. 40–41. David Stuart offers a tentative reading of **AK** or **AKAN**, "grass, grassland," for one sign, although the reading is not yet confirmed; Stuart, *Temple XIX*, 180, fn. 59. For supports: Carrasco Vargas, Vázquez López, and Martin, "Murals at Calakmul, Mexico." For a scaffold: Piedras Negras Stela 6; Stuart and Graham, *Piedras Negras*, 36. For Machaquila: Graham, *Archaeological Explorations*, figs. 34, 36. On Plan de Ayutla: Martos López, "Plan de Ayutla," figs. 9–10.

28. Stuart, "Architecture and Ritual." For *pat* as applied to moldable, plastic materials, see colonial Yukatek Maya; Barrera Vásquez, *Diccionario Maya Cordemex*, 632.

29. Coe and Kerr, *Art of Scribe*, 143–45, 169–73.

30. Zender, "Music of Shells." On bones and hunting magic: Brown, "Hunting Shrines." On bone imagery: K3395 in the Kerr database, for a partly flensed Jaguar, enema clyster in hand no less; Museo Popol Vuh, Guatemala City, #0420; for one of many skeletons, only just begun to putrefy, see K521, now in the Metropolitan Museum of Art, 1978.412.206.

31. On *ch'e'n:* Vogt and Stuart, "Ritual Caves." On earth and excrement: Houston, "Maya Musk." On *witz:* Stuart, *Phonetic Syllables*, 17–23. On Classic geography: Stuart and Houston, *Place Names*.

32. National Museum of the American Indian, #24/8346. On sandstone: Graham, *Altar de Sacrificios*, 118–19. On slate: Healy et al., "Pacbitun (Belize)."

33. Culbert, *Ceramics of Tikal*, fig. 50e; the bowl from Burial 195 at Tikal. The decipherment is a personal communication from David Stuart, 2000. The *ikaatz* proposal is in Stuart, "Jade and Chocolate." On Copan: Bell, Canuto, and Sharer, *Early Classic Copan*, pl. 2. On jade and the Maize God: K1004 in the Kerr database. See also Miller and Samayoa, "Maize May Grow."

34. Aoyama, *Chipped Stone Evidence*, fig. I.13, position F1 on the rim. On eccentrics: Clark, Nelson, and Titmus, "Flint Eccentrics." On eagles and flint: Karl Taube, personal communication, 1989; the Tonina reference is on Monument 91, position pB1. On sounds: Zender, "*Baj* 'Hammer.'" The vitalized yet skeletal images of obsidian—boniness may highlight their hard surface—occur as glyphic signs on Seibal Stela 13:C1, a panel from La Corona, Guatemala, now at the Art Institute of Chicago, B:3, and Quirigua Structure 1B-1, Hieroglyphic Frieze.

35. Hruby and Ware, "Painted Lithic Artifacts." For couplets: K1398 in the Kerr database; also, Coe *Maya Scribe*, pl. 6, position A1. The latter example may be verbalized.

36. Suyuc Ley, "Extraction of Obsidian." On representation of obsidian: Taube, "Polyhedral Cores." On the balustrade at Copan: Gordon, *Hieroglyphic Stairway*, pl. XIIIw. The head with signs for darkness transforms into the face of a Mexican deity, Tlaloc. For ornament from top of Stairway temple: Fash, *Copan Sculpture Museum*, 110.

37. Clark and Houston, "Craft Specialization."

38. The *sus* reading was first proposed by Nikolai Grube; for discussion of *jal*, see Stone and Zender, *Reading Maya Art*, 80–81. On *bubk:* Tokovinine, "Carved Panel," fig. 33. David Stuart notes the *pik* (**pi-ku**) on panels from La Corona, Guatemala; personal communication, 2008. On captive attire: Baudez and Mathews, "Capture and Sacrifice," 31–40. On ritual deposits of broken material: Clayton, Driver, and Kosakowsky, "Rubbish or Ritual?"; Stanton, Brown, and Pagliaro, "Garbage of the Gods"; for earlier periods, Walker, "Smashed Pots."

39. Consultable in "Interior Murals of Xultun Dwelling by *National Geographic*," *GigaPan* (http://gigapan.com/ gigapans/7bc77d83330b84e306765591b7742b77, accessed May 21, 2012). Spelled **sa-ku-nu ta-ji** and **'i-tz'i-ni ta-ji**, the former kindly confirmed by the excavator, Franco Rossi. The headdress is on Aguateca Stela 7; Graham, *Archaeological Explorations*, fig. 17; the jewel was found by Takeshi Inomata and Daniela Triadan.

40. A comparable discussion appears in Białostocki, *Message of Images*, 64–68. He sees in medieval thought a duality in which representations are not "as they are but as they ought to be"; reformulated in Ackerman, *Origins, Imitation, Conventions*, 126.

## Chapter 2. To Become Something Else

Epigraph: Samuel T. Coleridge, *Biographia Literaria; or Biographical Sketches of My Literary Life and Opinions* (London: Rest Fenner, 1817), 75.

1. A few Classic Maya painters of pottery are identified by hieroglyphs, from the area of Lake Peten Itza, Guatemala; see Houston, "Minds of Ancients," 152, fig. 4; also, Tokovinine and Zender, "Windy Water," 56–61, and Just,

*Dancing into Dreams*, passim. All are male and, as with sculptors, likely to have been of relatively high status. For striking evidence that painted works and pots were crafted by different people, see Coggins, "Painting and Drawing," 513–14. Although much later, the evidence is instructive from the Colonial Pokom Maya of highland Guatemala. They privileged literate painters over potters, restricting entry to training in the former: see Miles, *Pokom-Maya*, table 12. Nonetheless, absent a calligrapher's signature—no potter's names are known—there can be little certainty of this claim.

2. Claudia Brittenham, in her thoughtful review of the manuscript for this book, suggests that "preservation of course affects our understanding of skeuomorphs [cross-media reference, a term to be explained below], and may skew us to interpreting them as a desire for permanence. We have much less sense of what, if anything, objects in wood or fiber were imitating." The point is well taken but not, I believe, reflected in evidence. Depictions of perishable objects are abundant in Classic Maya imagery, and they are unambiguous in showing the unilateral influence of the impermanent on the permanent. No known objects of wood or fiber look like metal, ceramics, or jade, unless they were daubed, for ritual reasons, with green-blue pigment. Chapter 4 shows that green-blue is itself, in essence, a marker of living, verdant things, as captured in jade or greenstone.
3. Smith, *Ceramic Sequence*, fig. 39.8, caption. This volume is nearly peerless in the quality of its illustrations, drawn over decades by artists in Guatemala City.
4. The most complete visual inventory of Classic Maya baskets in any one place is Carrasco Vargas, Vásquez López, and Martin, "Murals at Calakmul," figs. 3, 4, 7 (the fullest available depiction of baskets may be found at Calakmul). Still the best reports on Pre-Columbian basketry are Mason, *Indian Basketry;* Morris and Burgh, *Anasazi Basketry;* Mefford, "Basketry"; strong comparative material in Adovasio, *Basketry Technology*. A feast of technological terms with accompanying images appears in Sentance, *Basketry*. For Preclassic basket designs on ceramics, consult Adams, *Altar de Sacrificios*, fig. 16, from the Plancha Complex. Note that baskets could be nearly as imporous as ceramics; see examples from the Tohono O'odham in the American Southwest, who used such containers to hold *tiswin* drinks made from saguaro cactus juice; Wyckoff, "Southwest," pl. 10. Some baskets could be covered with pine pitch and other materials to enhance this imporosity; see Mason, *Indian Basketry*, 104–5. Pointed bone tools, condyles intact, occur at Maya sites and, by comparison with ethnographic examples (Mason, *Indian Basketry*, fig. 40), were probably employed to make coiled basketry, among other functions, cf. Moholy-Nagy, *Artifacts of Tikal*, figs. 121a, b. Mason, *Indian Basketry*, 178–212, gives some idea of the lost vocabulary by which the weaver or basketmaker named certain elements of design. The meanings attached to Desana baskets and designs in Amazonian Colombia offer comparable complexities of nomenclature, reduced by one anthropologist to an overriding concern with exogamy: see Reichel-Dolmatoff, *Basketry as Metaphor*, 24–39, 42–43. Although abstract or geometric, the details are said to correlate with particular animals or fish and yet deeper levels of meaning and narrative. The chances are nonexistent of finding such nuance from visual patterns alone. Ceramics: Sherds excavated at Uaxactun are in Smith, *Ceramic Sequence*, fig. 60.22. An example, probably by the same workshop or painter, was collected on the surface by archaeologists in southeastern Campeche; García López, "Análisis del material," 143–75, esp. lám. 6-o. The author lists find-sites but not that of the sherd. Other such pots are unprovenanced but exhibited at the officially registered Juan Antonio Valdés Museum in Uaxactun, Guatemala. The monochromatic mate to the pot with avian motifs was auctioned at Arte Primitivo gallery in New York, as lot 1881-2A. Its current location is unknown. On grecas: The standard source remains, for central Mexican examples, Hermann Beyer, "El origen," along with Hernández Sánchez, "Temas rituales," figs. 5, 12. Others discern overt coding in the step-fret, known to Nahuatl speakers of the colonial period as *xicalcoliuhqui*, "twisted gourds" (*xīcalli* "gourd" + *cōliuhqui* "twist") along with claimed links to Mexican wind gods, in Angulo Villaseñor, "Notas sobre el diseño," 10. The step-fret is explicitly named as a *xicalcoliuhqui* on early Colonial sheets of tributary goods in the Matrícula de Tributos, folio 6r, and, from the same century, in Spanish, as a *jícara tuerta*, "twisted gourd," on page 5v of the Codex Magliabecchiano. The allusion is obscure, however. It may serve, not as a literal depiction of gourds, but as a convenient tag for weavers and consumers. The same page of the Matrícula, omitting "gourd," refers to the step fret as *tlapalcoliuhqui*, from *tlapalli* "paint, dye, ink" + *cōliuhqui* "twist." Dynamic images of waterfowl: Finamore and Houston, *Fiery Pool*, pls. 28, 29.
5. For complex, double-referents, see, from Uaxactun, Smith, *Ceramic Sequence*, fig. 41, in which a pot appears to evoke a basket evoking a painted textile. Ethnographic basketry and decay: Tozzer, *Mayas and Lacandones*, 57. For examples with coils, see, Edzna: Forsyth, *Edzna Ceramics*, fig. 24; southern Peten: Laporte, *Secuencia cerámica*, 1557 (Ixkun), 1649 (Aktun Ak'ab); Tikal: Culbert, *Ceramics of Tikal*, fig. 63e

(Burial 104, seventh century A.D.); Uaxactun: Smith, *Ceramic Sequence*, fig. 60.1-4. An unprovenanced vase with a concave side is in Miller and Martin, *Courtly Art*, pl. 52; the piece is now in the Duke University Museum of Art, #1978.37.3. In a personal communication, Charles Golden helpfully pointed to the general similarities of coil construction in baskets and clay bowls [December 2011]. For checkerwork as opposed to twilled or plaited work, see Miller and Martin, *Courtly Art*, pl. 17. Combinations of material: Pendergast, *Altun Ha*, vol. 1, fig. 36m; vol. 2, fig. 119m. A closely observed copy of what may be taut imbrication is in K634; a possible Preclassic template occurs in K127, if in a shape and color that, while of stone, resembles wood. Complex, reciprocal references were probably at stake: the format of these bowls recalls with force a series of Late Classic altars at Tikal, Guatemala; see Jones and Satterthwaite, *Monuments and Inscriptions*, figs. 34 (Altar 10), 40 (Altar 7), 57 (Altar 3), 60 (Altars 16, 18), and 61 (Altar 19). The basic source on such altars as bowls is Taube, "Womb of the World." A thorough if indiscernibly organized inventory of weaving or mat designs is in Robicsek, *Mat Symbol*.

6. Usually featuring individual strands, checkerwork of alternating color appears in Ceibal: Sabloff, *Excavations at Seibal*, fig. 265; Tikal: Culbert, *Ceramics of Tikal*, figs. 12 (Burial 167, Preclassic), 40 (Burial 23, Late Classic, seventh century A.D.), 60.1, 60.d.3 (Burial 87, Late Classic, eighth century A.D.); Uaxactun: Smith, *Ceramic Sequence*, figs. 60.14, 60.15. Diagonal, plaited examples include: Smith, *Ceramic Sequence*, figs. 32.14, 60.16, 60.17. On Mohegan baskets: Ann McMullen, "Eastern Woodlands," pl. 73; compare with K3801, Los Angeles County Museum of Art, M.2008.59. On Chama and basket originals: an example, with another nearby of transverse, angled plaiting, is on the so-called Fenton Vase, BM AOA 1930-1; reproduced in Schele and Miller, *Blood of Kings*, pl. 54a; see also K1392, drawn to my attention by Scott Hutson. For Chama pots, see Grant, with contributions by Danien, *Vase Conservation*. Terminal Classic references to baskets may figure in the "Fine Wares," especially the "grater bowls," so named because of the purported function of striations in their interior base. In fact, they point more strongly to basket designs; see Adams, *Altar de Sacrificios*, fig. 69-q-m, and Sabloff, *Excavations at Seibal*, figs. 381, 413–14, 421–23. Some, like creels, show a single fish incised within. On Campeche: Michelet, Becquelin, and Arnauld, *Mayas del Puuc*, fig. 7.2f.
7. I am indebted to Karl Taube for this observation; see, Tikal: Culbert, *Ceramics of Tikal*, fig. 47a; a probable basket lid on a cylindrical ceramic vase is K5349, as pointed out to me by Taube. Such a basket, possibly holding eggs, may be found on K8873. A possible clay version of such a rough-woven piece is Miller and Martin, *Courtly Art*, pl. 37. A well-known illustration of woven fans appears in K593, for many decades at the University of Pennsylvania Museum. Another, with the sideways view of a mat or *petate* and a basket captioned glyphically as **cha-chi**, appears in K2941, a vessel from c. A.D. 700. Round shields of basketry that are similar to Classic Maya ones appear in Reichel-Dolmatoff, *Basketry as Metaphor*, pls. 71–72; also, Sentance, *Basketry*, 194–97, for fans and shields. Stone shields in Ballcourt 1 at Tonina support kneeling captives, with two depictive possibilities: that the outsized shields are proportionally correct, to protect the entire body; or, as Simon Martin points out to me, that the captives depart from their usual proportions. The shields may simply offer a framing device at odds with their actual size, perhaps as the surrendered or "fallen" arms mentioned in some hieroglyphic texts (*jubuyi u took' u pakal*).
8. The most complete set of Pre-Columbian Maya textiles is from Chichen Itza, Mexico: Lothrop, "Textiles," esp. figs. 3.18, 3.20, 3.21; a fuller comparative sample, from superior conditions of preservation, is Teague, *Southwestern Prehistory*, esp. fig. 5.6, which shows a painted blanket that still draws on angular shapes: woven designs appear to dominate painted ones. The transcendent angularity of patterns on textiles is abundantly clear in O'Neale, *Textiles*, figs. 68–70. Painted designs that recall textiles are in Tikal: Culbert, *Ceramics of Tikal*, fig. 64a; Uaxactun: Smith, *Ceramic Sequence*, figs. 35.1, 40.9, 40.10, 40.13, 40.22, 57.4, 57.5, 60.20, 61.2, 62.8. A comparable example rests in the Museo Popol Vuh, Guatemala City, no. 0141.
9. For examples, see Schele and Miller, *Blood of Kings*, pl. 1, along the selvage of a noble lady's skirt, and at Pomona, Mexico, see fig. III.12, same volume. For similar belts, see O'Neale, *Textiles*, figs. 83, 119–22. At the time O'Neale was working, the 1930s, men's belts were noticeably wider than women's, and the examples on Maya pottery, particularly the more elaborate ones, may express such gendered use. For early selvage on a ceramic vessel, see Schele and Miller, *Blood of Kings*, pl. 107. Examples of grecas and related stepped designs on painted pottery include, Altar de Sacrificios: Adams, *Altar de Sacrificios*, figs. 37, 38c, 56f; Altun Ha: Pendergast, *Altun Ha*, vol. 1, fig. 44k; vol. 3, fig. 34m; Petexbatun: Foias, "Ceramic Production," figs. 6.48, 6.56; Piedras Negras: Holley, "Ceramic Change," 305, 329; southern Peten, Laporte, *Secuencia cerámica*, 1571–72, with a Terminal Classic example on 1694; Tikal: Culbert, *Ceramics of Tikal*, figs. 48b (Burial 159), 63.1.f (Burial 105); Uaxactun: Smith, *Ceramic Sequence*,

figs. 26.2, 26.3, 30c.3; Uxmal: Robert E. Smith, *Pottery of Mayapan*, figs. 7b, c, also, from Mayapan, figs. 25, y, z, 556.6. "Dynamic complementation": in a personal communication, Rebecca Stone-Miller notes that the step-fret is "quintessentially textile" yet also recalls a "constructed world" of platforms, terraces, and corbels. The contrast of colors and shapes nests in Andean evidence as dyadic complements that configure social and spiritual domains in the Andes. Terence Grieder makes an opposed, deeply eccentric claim that the step-fret is an expression of a "third wave" of human creativity, swept by historical contact, working through symbols that convey "celestial symbolism"; see Grieder, *Pre-Columbian Art*, 102–3, fig. 41. Previous discussions of the step-fret emphasize its origins not in weaving, but as a "potent symbol of power for Mesoamerican elites," see Kowalski, *House of the Governor*, 218. Similarly, Rosemary Sharp saw it as in terms of "multivocality ... [with] many natural associations ... implied potency, even deadliness"; Sharp, *Chacs and Chiefs*, 10. For this reading of the Bonampak murals, see Houston, Stuart, and Taube, *Memory of Bones*, 244–50. For more grecas on buildings in the Puuc region of Yucatan and Campeche, see Pollock, *The Puuc*, figs. 142, 150, 299, 368, 560, and 669.

10. Moholy-Nagy, *Artifacts of Tikal*, fig. 87. The author presents the stone mosaics in a square mass, but the plaques were almost certainly arranged in linear order. A small fragment of a belt in ceramic, also with step-fret, may also appear in fig. 245i, from the final years of the Classic period. Stacked bands appear in, Dos Pilas: Foias, "Ceramic Production," fig. 6.46; Mirador: Forsyth, *Ceramics of El Mirador*, fig. 45RR; Tikal: Culbert, *Ceramics of Tikal*, figs. 40b (Burial 23), 127h.2 (Problematic Deposit 44); Uaxactun: Smith, *Ceramic Sequence*, figs. 39.21, 57.1. Heads on vase lids: Culbert, *Ceramics of Tikal*, figs. 19, 30, all from the Early Classic; see also Chase and Chase, *Postclassic Perspective*, fig. 14a. Ballplayer belt on bowl: Pendergast, *Altun Ha*, vol. 2, fig. 200. Near-belt effects on ceramics: Smith, *Ceramic Sequence*, figs. 73.1, 73.3, 73.4, 73.c. Also, del Carmen Valverde Valdés, "Introducción," 28, fig. 2. On Dos Pilas finds and goddess skirts: Foias, "Ceramic Production," 1091, fig. C.6; for the aged goddess, Ixchel, see Taube, "Birth Vase," 652–85.

11. A depiction of such textiles is in Schele and Miller, *Blood of Kings*, pl. 48, Culbert, *Ceramics of Tikal*, fig. 70, and Laporte, *Secuencia cerámica*, 1134; see also K0551, the goddess in front of a deity. For examples on pottery, see, Uaxactun: Smith, *Ceramic Sequence*, figs. 39.9, 39.22. For examples that recall the circles-within-circles of batik, or the repetitious patterns of painted fabric, see, for example, Altar de Sacrificios: Adams, *Altar de Sacrificios*, fig. 51d; Ceibal: Sabloff, *Excavations at Seibal*, fig. 252; La Joyanca, Guatemala: Forné, *Cronología cerámica*, fig. 12; Piedras Negras: Holley, "Ceramic Change," 313; southern Peten: Laporte, *Secuencia cerámica*, 1136; Tikal: Culbert, *Ceramics of Tikal*, figs. 59b, 60b, 64a, 78a; Uaxactun: Smith, *Ceramic Sequence*, figs. 5f, g, 33.2, 35.1, 40.20, 40.22, 57.4, 57.5, 59.i, 60.20, 61.4, 62.9–11, 64.c.6, 73.5. Many ceramics with resist decoration suggest cross-references to textiles; see Pendergast, *Altun Ha*, vol. 3, fig. 90d. For possible evocation of batik in the Late Preclassic examples, see Adams, *Altar de Sacrificios*, figs. 21a, 82, 84. A tie-dye of notably similar appearance, if from the ancient Colorado Plateau, is in Teague, *Southwestern Prehistory*, fig. 5.7. For tie-dye in Mesoamerica, see Anawalt, "Emperor's Cloak," 291–307; also Anawalt, *Indian Clothing*. Batik targets yarn before it is woven, plangi applies resist techniques after weaving, resulting in different designs. On Andean examples: Stone-Miller, "Weave for the Sun," 23, fig. 1.24, pl. 20. On resist at Piedras Negras, see Holley, "Ceramic Change," 483–89, figs. 38, 39; Muñoz, "Power, Practice, Production," 18, fn. 1, 156, 241–65. For regional contrasts, see Golden et al., "Piedras Negras and Yaxchilan," 261–62. Basketry and community identity: Reichel-Dolmatoff, *Basketry as Metaphor*, 40–41. Claudia Brittenham points me to a useful study of the colonial origins of Highland Maya dress: Siverts, "Ethnic Stability," 101–16.

12. For such kilts, see what must have been a rugged example to prevent chafing in the Maya ballgame: Miller and Martin, *Courtly Art*, pl. 43. Feline pelage appears at, Aguateca: Inomata, Triadan, and Pinto, "Vessels," figs. 8.3, 8.6, 8.16; Altar de Sacrificios: Adams, *Altar de Sacrificios*, fig. 50c; Altun Ha: Pendergast, *Altun Ha*, vol. 1, figs. 17j (Tomb A-1/1), 39c, vol. 2, fig. 116m; southeastern Peten, Laporte, *Secuencia cerámica*, 1122–24, 1132, 1566 (Ixtonton); Tikal: Culbert, *Ceramics of Tikal*, figs. 59 (Burial 80), 61.c.1 (Burial 90), 79a.1, 2 (Burial 154); Uaxactun: Smith, *Ceramic Sequence*, figs. 9, 35.2, 59.g, 72f, and, of course, in Room 1 of the Bonampak murals. Animal skin adorns a subsidiary lord in the kingdom of Yaxchilan; La Pasadita Lintel 1, A.D. 759, Ident.-Nr. IV Ca 45530; see Grube and Gaida, *Die Maya*, Abb. 26. Arms dangling, the hide shows also the irregular outline of the pelt. Calakmul leather: Carrasco Vargas, Vázquez López, and Martin, "Murals at Calakmul," fig. 3. The trimmed arms are still visible in the garment, hanging downward, as is, in the photograph, an irregularity to the edge of the hide. A Late Classic snake skin wraps around a Late Classic vessel at, among other places, Altar de Sacrificios; see Adams, *Altar de Sacrificios*, fig. 56i. A reference to snake skins, but for use in ritual items, is in Wisdom, *Chorti Maya*, 73.

13. In a personal communication, David Lentz points out that mammiform spines are common to the family of ceiba, the Bombacaceae. Incense-producing trees, young and old, have smooth skins [December 2011]. For such spikes on ceramics, see, Altun Ha: Pendergast, *Altun Ha,* vol. 2, figs. 61d, e, 81a (Tomb B-4/4, Early Postclassic); Ceibal: Sabloff, *Excavations at Seibal,* figs. 331–36; La Joyanca: Forné, *Cronología cerámica,* #2712-3; Uaxactun: Smith, *Ceramic Sequence,* fig. 16.1; Uxmal: Smith, *Pottery of Mayapan,* fig. 3. For ceiba as world centers and sacred hearths, see Taube, "Jade Hearth," 446–54. On ceiba flowers: Zidar and Elisens, "Sacred Giants," fig. 2b.

14. Inadvertently, one monograph on Maya ceramics offers a set of hypothetical shapes that, in totality, resemble nothing less than a bottle gourd; see Forné, *Cronología cerámica,* fig. 12. Ceremonial gourds among the Lacandon are reported in Tozzer, *Mayas and Lacandones,* 65, figs. 4–15. For painted gourds at Chichen Itza: Moholy-Nagy, Coggins, and Ladd, "Miscellaneous," figs. 10.2, 10.3, 10.4. Ch'orti' use: Girard, *People of Chan,* 245–46, fn. 14, fig. 109. For fully modeled bottle gourds and squashes in ceramic, see Early Classic example in Smith, *Ceramic Sequence,* fig. 66.1, Kislak Collection, Kislak PC 0183, K6220; also, Copan, Margarita Tomb: Bell, Canuto, and Sharer, *Early Classic Copan,* pl. 7e; Late Classic examples may be found in Kislak Collection, Kislak PC 0013, K2226 in the Kerr database, and in Miller and Martin, *Courtly Art,* pl. 74 (Museo Regional de Yucatán, #10-426169). A possible cucurbit form of Terminal Classic date is in Smith, *Ceramic Sequence,* fig. 50.11. Another example, now with blossom, is in the Museum Volkenkunde, Leiden; #3946-2, *Kom in de vorm van een kalebas.* Painted bowls that show ribbing, stems, and bases are in, Altun Ha: Pendergast, *Altun Ha,* vol. 1, fig. 32n (Burial A-8), vol. 3, fig. 41c; southern Peten: Laporte, *Secuencia cerámica,* 1648; Tikal: Culbert, *Ceramics of Tikal,* figs. 47b (Burial 150), 146 (Problematic Deposit 134); Uaxactun: Smith, *Ceramic Sequence,* figs. 64.3, 73.b.12. For a bowl at Dumbarton Oaks: Martin, "Carved Bowl," pl. 9. On shifting depiction: Smith, *Ceramic Sequence,* figs. 7f, g, h. For hemispheric bowls, see, e.g., Adams, *Altar de Sacrificios,* fig. 9z. An example in fine limestone takes the "petrification" of the gourd to another level, with precise simulation of the dun surface of the original; see Miller and Martin, *Courtly Art,* pl. 33. Karl Taube was the first to point out the stone material. Claudia Brittenham suggests to me that some aesthetic pleasure came, perhaps, from the unexpected weight of such bowls, shaved so thin as to recall the light heft of gourds. Generally, however, mimics are heavier than their originals, most likely as a secondary effect of their more durable materials. The Dumbarton Oaks bowl may also be an example of a "double-refraction," of a stone bowl that mimics clay which recalls a gourd original. The effect is so strong that, some decades ago, an attempt was made at Dumbarton Oaks to sample the "clay paste" of the bowl for its chemical provenancing and to liken it to other samples from ceramics. Pyroengraving is studied in Jiménez Borja, "Mate peruano." Note especially the evident replication of textile designs on Pre-Columbian examples, as in, same source, 41–45. The most thorough preservation occurs in Peru, see von Hagen, "Chachapoya Iconography," 144, figs. 5.3, 5.4. For possible Maya example, see Pendergast, *Altun Ha,* vol. 1, fig 44f.

15. For terms, Yukatek: Barrera Vásquez, *Diccionario Maya Cordemex,* 261, 917; Ch'orti': Charles Wisdom, lexical notes, University of Chicago, transcribed by Brian Stross; Ch'olti': Robertson, Law, and Haertel, *Colonial Ch'olti',* 298. Modern Tzotzil Maya has a term, *čil,* thought to be "archaic," for the armadillo shell itself, Laughlin, *Great Tzotzil Dictionary,* 396. Diego de Landa: Tozzer, *Landa's Relación,* 204, fn. 1139. On ancient Maya consumption of armadillo, a creature more likely to be taken in open rather than forested conditions, see Emery, "National Resource Use," 38, table 1. Among the Ch'orti' Maya, the armadillo is thought to be especially delicious, and dogs, too, chase them freely, flipping them over to gorge on their tender stomachs; Kerry Hull, personal communication, March 2012. On Ch'orti' use: Wisdom, *Chorti Maya,* 73, fn. 17. On Nahuatl: de Sahagún, *Florentine Codex,* 61. On Yukatek terms: Thompson, *Pottery Making,* 123, figs. 39a, 41a, d, g. In southern Belize, armadillos were said to have been the seats of an elderly god, a usage consistent with the small wooden chairs, often with protruding tail, in highland Maya communities: see Thompson, *Ethnology of the Mayas,* 58. Another treatment is Stross, "Armadillo Stool," esp. 8, which notes the use across Mesoamerica of "an armadillo carapace as a container for seed corn when sowing the milpa." I thank Kerry Hull for this reference. Classic Maya paintings of armadillo appear in the Justin Kerr database: K1227, K1254, K3876 (inverted, as a seat), along with a Late Classic shell effigy from Offering 10, Yaxha. For another complete effigy, from the coast of Guatemala, Early Postclassic in date, see Anonymous, "Acquisitions," 55. On armadillos in ceramics: Longyear, *Copan Ceramics,* figs. 102e, 117d; discussed in Joyce, "Terminal Interaction," 319–21, fig. 5. For similar armadillo designs: Rio Frio Cave E: Pendergast, *Rio Frio Cave,* fig. 5l, perhaps roughed skin; Mirador: Forsyth, *Ceramics of El Mirador,* fig. 47; Uaxactun: Smith, *Ceramic Sequence,* fig. 39.8. Notably, the precise orientation of the scutes

make it clear that those depicted as hide only are shown figuratively on their backs, like a container of dried hide. On menstrual flow: Kerry Hull, personal communication, March 2012.

16. Possible copies of wooden originals occur in Smith, *Ceramic Sequence*, figs. 1h, i. For fluting and other woodlike embellishments: Smith, *Ceramic Sequence*, figs. 6j, l, m, p; see also Adams, *Altar de Sacrificios*, figs. 35, 52. Carving and excision: Adams, *Altar de Sacrificios*, figs. 31c, 32i, 33; for other examples, see, Urita Gouge-Incised from the Southwestern Peten, Guatemala, Laporte, *Secuencia cerámica*, 649–52. Woodlike "grain": K3684, K8552, as though of rich mahogany or tropical cedar. Claudia Brittenham drew my attention to these in 2005. Simon Martin also suggested a look at K6069, with both "grain" and incisions or excisions similar to those on wood. Trunks as vessels: Lee, *Chiapa de Corzo*, 189. A notable attribute of the cylinder as a form is that, when lacking basal supports, it flourished first in cache vessels, often sealed with separate, rimmed lids; see Culbert, *Ceramics of Tikal*, figs. 100f, 101d, 102d, f. The unadorned cylinder, which did later service as drinking vessels for chocolate, may have shifted in function, from a habitual setting of rapid interment, as a receptacle for sacred objects, to use in royal feasts, and as gifts to exalted personages. Chochola ceramics are discussed in García Campillo, "Informe epigráfico"; Coe, *Maya Scribe*, pls. 54–67; Grube, "Primary Standard Sequence," 320–30; Tate, "Carved Ceramics," 123–33. For wooden vessel at Tikal: Martin, "Caracol Emblem." In July 2010, the Museo Nacional de Arqueología e Etnología in Guatemala City displayed wooden vessels from Cancuen, found waterlogged in remarkable preservation near the so-called "port" of that city. Dating to the final years of the Classic period, they resembled some serving bowls of the time; for other wooden objects, see Moholy-Nagy, *Artifacts of Tikal*, 53–54. Preclassic ceramics: Forsyth, *Ceramics of El Mirador*, 21–46, for authoritative discussion.

17. Miller and Martin, *Courtly Art*, 58–63. For *Muwaan* feathers, see, Tikal: Culbert, *Ceramics of Tikal*, figs. 58c, 64.3.c; Uaxactun: Smith, *Ceramic Sequence*, figs. 11a, 55.1–10, 61.1–17, 65b, 66, 67. On Pomo baskets: McLendon, "Pomo Weavers," 34–47. On penalties: Tozzer, *Landa's Relación*, 89, fn. 380. On sacrificial bowls: Taube, "Womb of the World," 3–8.

18. George Kubler introduced the term "plectogenic," "generated by textiles," to describe designs in early Peru constrained by—even accenting—the potentials of fabric technology; see Kubler, *Art and Architecture*, 293–94, 296. Yet, in odd oversight, Kubler fails to comment on such patterns, so clearly evident in Oaxaca, *Art and Architecture*, 95, 97, fig. 25. Cross-media transfers are teased out in Stone-Miller and McEwan, "Wari State," 54–55, figs. 7–9. A thoughtful discussion of the impact of textiles on adobe facades in the Chimú empire of Peru (c. A.D. 1300 to 1500) appears in Pillsbury, "Reading Art," 83–86. For Pillsbury, the ubiquity of such design transfers reflects the intrinsic value of textiles. They embodied acts of reciprocity and served as efficient cover for walls, being less expensive to produce and maintain than fabric. Perhaps, too, they operated as surfaces intended to protect and "dress" the building, almost as though it were a person. Kerry Hull suggests that these metaphors make much sense of Ch'orti' language, in which terms for "decorate" with clothing apply to both people and houses; personal communication, March 2012. Multiple replasterings, well attested at Chimú sites, may express a conceptual change of clothes, a new raiment for a repurposed or reoccupied structure. But now the "fabric" is mud brick, a material appropriate for coastal buildings. This view compels closer attention, not to the fact of such transfers, which Pillsbury confirms beyond doubt, but to the question of why certain patterns were selected in the first place. As Pillsbury notes, with regret, this inquiry is almost unanswerable in a prehistoric setting, yet it remains central to understanding the facades. For stone "textiles" on buildings, see Taube, "Jade Hearth," figs. 1–2. Textile designs on buildings in Yucatan are well illustrated in Kowalski, *House of the Governor*, figs. 16, 18, 136. See also Kowalski and Miller, "Textile Designs," 145–52. The essay nonetheless focuses on the labor value of such textiles, especially that of women. In all likelihood, however, the meanings were polysemous. Intrinsic value and control of female labor would have been only one set of possible meanings. For Machaquila, see Graham, *Archaeological Explorations*, figs. 34, 36, also Chapter 1 here; similar, thatched dwelling at Uxmal and Labna, Yucatan, in Kowalski, *House of the Governor*, figs. 79, 96. The House of the Birds at Uxmal may display birds on a thatched roof, in evocation of a more sylvan setting; see Pollock, *The Puuc*, figs. 420, 423. For columns in building facades, see examples from Late Classic Campeche, Mexico, in Michelet, Becquelin, Arnauld, *Mayas del Puuc*, figs. 2.10, 2.14, 2.32; same source, shows textile "quotations," and, across a lintel, on fig. 2.22b, a dancer's belt of *Oliva* or *Conus* shells and chevroned textile. The referents are manifold, to a metaphor of house as human body to a stone building as a more permanent version of one in wood. I thank Scott Hutson for reminding me of the pillar skeuomorphs in Yucatan.

19. The classic statement is Pendergast, "Metal Artifacts"; detailed follow-up, focused on gold, is Bray, "Maya Metalwork," and Bray, "Fine Metal Jewelry." Other sources, Hosler, "Metal Production"; Paris, "Metallurgy";

Simmons, Pendergast, and Graham, "Copper Artifacts." On plumbate: Neff, "Plumbate Pottery"; Neff, "Distribution of Plumbate." Finca el Paraíso: Shook, "Guatemala Highlands," 179–84; for images, see Harvard University Library, Visual Information Access, Peabody Numbers 58-34-20/43031 to 43033, Carnegie Institution of Washington, Numbers 47-9-164 to 166. On bone and palm nut bells: Ishihara-Brito and Taube, "Carved Bells," 462. On "faux" jade: W. Coe, *Piedras Negras Archaeology*, fig. 58.

20. For "edging," Ceibal: Sabloff, *Excavations at Seibal*, fig. 248; Mirador: Forsyth, *Ceramics of El Mirador*, fig. 47; Uaxactun: Smith, *Ceramic Sequence*, figs. 7g, 35.6, 35.8, 39.9 (here in combination with textile-inspired rim and body), fig. 66. For possible quotations of armadillo hide as "quotations" used for edging, see Smith, *Ceramic Sequence*, figs. 32.13, 60.25, 73.3, 74c. Many accompany depictions of textile bands, however—by another interpretation the triangles equally evoke a woven or plaited form. For gendered craft among the Maya, see Gann, *Maya Indians*, 17; also, Metz, *Ch'orti'-Maya Survival*, 98, commenting that "women often complete the finer, more dexterous jobs of weaving fibers, mats, and baskets." *Sak lak:* reading from Stuart, "CPN 217." Note that *lak* also has the sense of "plate," but examples from texts at Comalcalco, Tabasco, Mexico, confirm the sense of object of fired clay.

21. See Vitruvius, *Ten Books*, 39, 106, albeit in a speculative story that attributes a common motif to an obviously fictive incident in the past. To Vitruvius (c. 70 to 15 B.C.) also goes explicit credit for seeing wooden prototypes behind the marble roofing elements of Greek temples: "Thus each and every detail has a place, origin, and order of its own. In accordance with these details, and starting from carpenter's work, artists in building temples of stone and marble imitated those arrangements in their sculptures, believing that they must follow those inventions"; see Vitruvius, *Ten Books*, 107. It is unclear whether this was a folk theory current in the time of Vitruvius or a reference to overt copies of contemporary buildings in wood. The plastic meanings of classical columns finds a thorough review in Onians, *Bearers of Meaning*, 36. The standard work on conjectural theories of building origins is Rykwert, *Adam's House;* for late-seventeenth-century views in France, which perceived wooden prototypes in imitations of stone, see Wolfgang Herrmann, *Laugier*, 47–48, fn. 40, which stresses the theory, novel to Marc-Antoine Laugier (1713–1769), that the prototype was "not a curious illustration of a distant past or a factor of an evolutionary theory of architecture but the great principle from which ... to deduce immutable laws." This claim resonates with Jean-Jacques Rousseau's nostalgia for an exemplary human past, if expressed here in primordial acts of construction. In Laugier's words, rude huts offered a "first model" whose "simplicity" allowed "essential mistakes [to be] avoided and true perfection ... achieved"; Herrmann, *Laugier*, 48. Nonetheless, for Laugier and perhaps Rousseau, nascent culture imitated nature yet wandered only a slight distance away from it. Rousseau, for one, was loath to leave the hut of "innocent and virtuous" men behind; see Rousseau, *Social Contract*, 145. On Goethe: Gage, *Goethe on Art*, 197, cited in Hvattum, *Gottfried Semper*, 56, fn. 41. Gage notes that Goethe most likely took this inference from Winckelmann, *Anmerkungen*, 20, writing of columns: ... *welche in den ältesten Zeiten von Holze waren*, "which were in the earliest times of wood." On the urges to "art": Cassirer, *Essay on Man*, 179. For Cassirer, variously building on and rejecting that tradition of thought, art concerns a delight or "pleasure" in forms, perceived and reconstituted in the viewer's mind; see Cassirer, *Essay on Man*, 204. Such reflections invariably address the philosopher-academic-critic, not the brawn, dexterity, and material crafting of the makers. For earlier, eighteenth-century doctrines of imitation, see Hvattum, *Gottfried Semper*, 47. Then, Gombrich's classic, *Art and Illusion*, 77: "The 'will-to-form' is rather 'will-to-make-conform,' the assimilation of any new shape to the schemata and patterns an artist learns to handle."

22. Gustav Klemm's most influential publication was the multi-volume *Allgemeine Cultur-Geschichte der Menscheit*. For a searching review of his work in relation to Gottfried Semper, and for words and phrases cited here, see Mallgrave, "Klemm and Semper," 72–74. For more on Semper see Herrmann, *In Search;* Mallgrave, *Semper: Architect*, 180–81. For transposition and long-term traces, see Semper in Herrmann, *In Search*, 206: "The covering of the wall retained this meaning when *other materials* than carpets were used either because these materials lasted longer or because they were cheaper, easier to clean, or more magnificent, as for instance when carpets were replaced by stucco, paneling, alabaster, or metal plates. For a long time the character of the new covering followed that of the prototype. The artists who created the painted or sculptured decoration on wood, stucco, stone, or metal, following a tradition that they were hardly conscious of, imitated the colorful embroideries of the age-old carpet-walls." On primeval patterns: Hvattum, *Gottfried Semper*, 72. At a later date, Henri Bergson, commenting on ancient stone tools, noted a similar intrinsic, defining feature of humans: "In short, *intelligence, considered in what seems to be its original feature, is the faculty of manufacturing artificial objects, especially tools to make tools, and of indefinitely varying*

*the manufacture*.... For every need that it satisfies, it creates a new need; and so, instead of closing, like instinct, the round of action within which the animal tends to move automatically, it lays open to activity an unlimited field into which it is driven further and further, and made more and more free"; italics in original, Bergson, *Creative Evolution*, 140–41. The long-term results are, to Bergson, ultimately unforeseeable. On Schiller and his successors: Mallgrave, "Klemm and Semper," fn. 37. For revealing comments on metamorphosis, intellectual debts to Goethe, and the search for principles and order amidst a "multitude of the perturbations," see von Humboldt, *Cosmos*. On the historical connections of all beings, von Humboldt refers, on 42, to "not merely an isolated species but a form linked in the chain of being to other forms either living or extinct"; and, on 358, he asserts a restless human drive that is "touching and beautiful ... this longing for that which is unknown, and this fond remembrance of that which is lost ... spar[ing him] from an exclusive attachment to the present." Friedrich Schiller, elevating dramaturgy to high theory, was similarly insistent on "play" as the escape chute from "the slavery of the animal state": humans "delight in appearance, a disposition towards ornament and play," a pleasure from which "also follows the imitative creative impulse"; see Schiller, *Aesthetic Education*, 125, 127. See also Kubler, *Esthetic Recognition*, 110, fn 4.7. Schiller's enthusiasms are mirrored in Focillon, *Forms in Art*, 99, in which imitative emulation is less the point than a substantive shift, a "sorcery ... a transformation and novelty." A more focused, less mystical work by a student of Focillon is Kubler, *Shape of Time*, esp. 2, 39–40. Kubler: "Everything made now is either a replica or a variant of something made a little time ago and so on back without break to the first morning of human time"; *Shape of Time*, 2. Kubler hypothesized an original thing, a "prime object," which, in Steadman's words, "possesses a degree of novelty and original invention in its form ... a 'mutant' ... distinguished from the mass of replicas in which the same form is reproduced and perhaps degraded"; Steadman, *Evolution of Designs*, 226. For the "pleasure" of imitation, see Danto, "Transfiguration," 144. For Danto, an imitation deals in "fantasy," an amusement in what is known to be "unreal." At times, perhaps. Clearly no comparatist, Danto overlooks other understandings, common to ethnography and history, that identify circumstances in which a replication or copy equates to its original; see Chapter 3. On Semper and Darwin: Steadman, *Evolution of Designs*, 73.

23. For typology, see Bowden, *Pitt Rivers*, 55. For perceptive comment on the gradualism of Pitt-Rivers, relation to modern "battleship" curves of artifact seriation, and positing of an "automaton mind," see Hodder, "Creative Thought," 69–70. Pitt-Rivers, founder of the eponymous museum at Oxford, is placed historically and intellectually in Chapman, "Arranging Ethnology," 20–29, 31, 33. Pitt-Rivers's evolving fascination with typological evolutionism is explored in Thompson, *General Pitt-Rivers*, 31–44, from which the citations here are taken. Thompson spells out the clubby intimacy and freethinking of prehistorians and Darwinists such as John Lubbock (later Lord Avebury), Thomas Huxley, the collector Henry Christy, and Herbert Spencer. Many had Quaker backgrounds (Christy, Spencer, and the evolutionary anthropologist Edward Tylor), and may thus have inherited a predisposed disdain for clerical authority and unexamined revelation. In his 1875 lecture "On the Evolution of Culture," Pitt-Rivers suggested that certain forms transferred into functionally related substances, as in stone to copper then bronze, preserving, briefly, designs that had formerly served a purpose; other forms, especially representational ones, "decayed" into incomprehensive abstraction; see reprinted essay in Thompson, *General Pitt-Rivers*, 146, 151.

24. See Pitt-Rivers, "New-Zealand Mere," 107; cited and discussed in a biography focused on his archaeological contributions, in Bowden, *Pitt Rivers*, 54. There is consistency, too, in Oxford's locating the Pitt-Rivers Museum in a complex of scientific buildings: physical placement accorded with intellectual real estate; see Larson, "Comparative Anatomy," 94, fig. 2. Useful discussion on the museum and its intellectual and social matrix comes from Gosden and Larson, *Knowing Things*. Design theorists: Brett, "Design Reform," 46. Gradual change: Eisenman, "Design in the Age of Darwin," 6–8. Form and function: Steadman, *Evolution of Designs*, 81–82.

25. Cited in Steadman, *Evolution of Designs*, 104; see also Balfour, *Decorative Art*, 21–24. Balfour made explicit comparisons between his enterprise and evolutionary or "embryological" evidence; see Larson, "Comparative Anatomy," 101, quoting Balfour, "Structure and Affinities," 244. On skeuomorphs: Colley March, "Meaning of Ornament," 161–92. A more expansive exposition may be found in his "Evolution and Psychology." V. Gordon Childe credited the term "skeuomorph" to the Classicist Sir John Myres in *Piecing Together*, 13. This is unlikely to be valid. Born in 1869, Myres would have been eighteen or nineteen when Colley March prepared his essay. It appears that Colley March's wife continued his interests. After his death, she translated Stolpe, *Collected Essays*.

26. A thorough and discerning review of skeuomorphs in European archaeology is Frieman, "Skeuomorphs and Stone-Working," esp. 18–40; published as Frieman, *Innovation and Imitation*.

Dr. Frieman kindly shared her thesis and valuable discussion besides. A useful chart showing variant explanations of skeuomorphy, or skeuomorphism, is in Frieman, "Imitation, Identity, Communication," table 1. For such "mimetic tension," see Frieman, "Skeuomorphs and Stone-Working," 37. On Le Corbusier: Amado, *Voiture Minimum*, 15, 53–53.

27. The link to Semper is made clear in Haddon, *History of Anthropology*, 157. Also, Haddon, *Life-Histories of Designs*, 192. Much like other morphologists, Haddon, although credited as one of the founders of academic anthropology in England, trained as a zoologist; see Stocking, *After Tylor*, 98–117. For quotes from H. Colley March, "Meaning of Ornament," 166, 172; also, Colley March, "Evolution and Psychology," 442; on evolving theories of ornament, see Hersey, *Lost Meaning*. These ideas were current before March; see the shrill remarks about Pre-Columbian sites by Eugène-Emmanuel Viollet-le-Duc, who perceives in them a moral failing, with arts "only imperfectly and rudely assimilated": "We find the trace of original elements transferred thither at second hand, construction in wood portrayed, but simulated unconsciously even in stone; adhesive methods, masonry with mortar for example; stone worked in disregard of its natural qualities and the requirements of its setting, the traces of ornamentation derived from woven stuffs and lacework; consequently an art already very old, in unmistakable decadence"; in Viollet-le-Duc, *Architectural Theory*, 35; for other cross-media productions, 46. March found a further echo, even a more reductive statement of similar thoughts, in Fletcher, *Influence of Material*, 6–7; see, too, Steadman, *Evolution of Designs*, 116.

28. Inclined to gnomic declaration about "laws" of ornamentation, Holmes continues to stimulate and provoke in *Origin and Development*, 444, 446, 450, 464. For Semper's probable influence on Holmes, see Kubler, *Esthetic Recognition*, 115.

29. Freud, "On Transience," 176.

30. Nelson Goodman would have agreed with the sheer impossibility of making a complete copy: "nothing is ever represented either shorn of or in the fullness of its properties"; Goodman, *Languages of Art*, 9. Yet, to Theodor W. Adorno, writing of art, the semblance of one thing to another rescues a shared inner truth. The paradox: that "only through making … does art achieve what is not made, the truth"; Adorno, *Aesthetic Theory*, 131. For "false claimant": Camille, "Simulacrum," 35. Camille further discusses more positive views of simulacra by Gilles Deleuze, Jean Baudrillard, and others, who nonetheless situate their arguments narrowly, encaged within the ironies and paradoxes of postmodernity. For Classical views of mimesis: Sörbom, "Classical Mimesis," 19–28. On abstraction: Steadman, *Evolution of Designs*, 110–11. For critical discussion of the assumption that "naturalistic representation precedes the abstract"—and, in more telling riposte, of the very concepts that undergird terms like "abstract" and "realistic"—see Bagley, *Max Loehr*, 91 fn. 315.

31. For "unconscious," see *Oxford English Dictionary*, www.oed.com/view/Entry/210776. By and on Morelli: Morelli, *Italian Painters;* see also Maginnis, "Perceptual Learning," 104–17; and Agosti, Manca, and Panzeri, *Giovanni Morelli*. Maginnis underscores Morelli's debts to comparative anatomy and his friendship with Louis Agassiz, a figure of close acquaintance to the young William James; Maginnis, "Perceptual Learning," 105. Tellingly, for his celebrated *grundformen*, Morelli isolated features that were in fact best understood as relational, less an "aggregate of personal, invariant forms" than "distinctive combinations and inter-relations"; see Maginnis, "Perceptual Learning," 106. Morelli could not have been clearer about his views, as in a letter to a friend: *mi occupo di anatomia e scienze naturali*, "I busy myself with anatomy and natural science"; see Pau, "Origini scientifiche," 301. In clear lineage, Bernard Berenson, who said of artistic attribution, *basta videre*, "it is enough to look," studied with James at Harvard; Samuels, *Bernard Berenson*, 31, 37. On Beazley's approach: Cherry, "Beazley." On Freud and art: Freud, "Moses of Michelangelo," 133–34. An influential view of this encounter, with searching doubts about the Morellian method, appears in Wollheim, "Scientific Connoisseurship." A frequently cited study of Morelli-as-sleuth: Ginzburg, "Morelli, Freud, and Holmes."

32. For mention of tactile properties and textural cues in skeuomorphs, see Hurcombe, "Organics from Inorganics," 105. For the unilateral premise and its problems, see Frieman, "Imitation, Identity, Communication," 36.

33. On interpretation: Frieman, "Skeuomorphs and Stone-Working," 35. For necessary stress on local circumstances, see Frieman, "Imitation, Identity, Communication," 37. For multiple motivations: Frieman, "Skeuomorphs and Stone-Working," 35; discussing, Hurcombe, "Organics from Inorganics," 102, which notes the irreducibility of skeuomorphy to "one phenomenon." The point here is that several phenomena may also materialize within a single skeuomorph.

34. Frieman, "Imitation, Identity, Communication," 40.

35. Cognitive psychology and its evolutionary import figure in Dukas and Ratcliffe, *Cognitive Ecology;* also, Barkow, Cosmides, and Tooby, *Adapted Mind*. A speculative view of skeuomorphs as "evolutionary computing" invades Gessler, "Artificial Culture," 93–100, esp. 94:

"Skeuomorphs are material metaphors. They are informational attributes of artifacts which help us find a path through unfamiliar territory. They help us map the new onto an existing cognitive structure, and, in so doing, give us a starting point from which we may evolve additional alternative solutions. . . . [They] constitute a special class of self-deception." On binaries and analogy: Hofstadter, "Analogy." For an influential article, see Gentner, "Structure-Mapping." On sources and targets: Christensen, *Creative Cognition*, 8. On blended representations: Holyoak, Gentner, and Kokinov, "Introduction," 9, 13.

36. The literature on "material engagement" as a primary attribute of humanity figured strongly at Cambridge University, in works cited in Chapter 1; Taylor, "Skeuomorphism." See also, Taylor, *Artificial Ape*, 152–55. Through his examples, a plastic cork compared to early pottery in central Europe, Taylor appears not to see roles for industrial production and varied paces of change as influences on skeuomorphy. As a descriptive, "gradual" in recent times may differ radically from "gradual" in the early Bronze Age. For "drift," see Hodder, "Creative Thought," 64, who also, on 65, stresses the role of "learning" in such copying, not "invention." The central paper on "drift" in archaeology is Neiman, "Stylistic Variation"; further treatment in Shennan, "Evolution in Archaeology," 81–82; for neutral copying and copying bias, see Lipo and Eerkens, "Cultural Transmission Theory." A critique of Apple computer design and its reliance on skeuomorphs appears in Thompson, "Retro Design." Designs that jettison skeuomorphs—e.g., calendars that do not resemble their paper forebears—receive an approving nod. Claudia Brittenham brought this reference to my attention.

37. Wengrow, "Evolution of Simplicity," 178, 181.

38. A useful statement about the "increasingly complex" ambience of Halaf is in Akkermans, "Halaf Culture"; see also, on the earliest pottery, Nieuwenhuys, Akkermans, and van der Plicht, "Pottery of Syria." On Puebloan evidence and its complexity: Crown, "Pots and Potters," 678–79; see thorough review in Mills, "Gender, and Inequality."

39. As an example, with references to leather or turned-wood prototypes, see Manby, "Skeuomorphism: Reflections," 81–88. A fascinating glimpse into skeuomorphy in motion is Russell, "The Birth of Skeuomorph," 113–17. A metal form reproduces a traditional cooking container, motivated in this instance by a new, intense source of heating, butane. On Sanchi, see Trainor, "Buddhist Ritual Site," 22, alluding to John Marshall's suggestion of wooden models for features in stone; for a more skeptical view, see discussion in Zin, "Architectural Elements," 464, 467; also, Kottkamp, *Der Stupa*, 4, 136. James Fitzgerald and Monica Smith gave leads on sources. For another well-known example of cross-media transfer, see the Heb Sed Court from the Old Kingdom funerary complex of Djoser: Lauer, "Step Pyramid," 16; Smith, *Art and Architecture*, 26–27.

40. For humor, ribaldry, buffoonery among one ancient people, the Maya, see Taube, "Ritual Humor"; also, Taube and Taube, "Aesthetics and Morality." The anecdote is from Pliny the Elder, "Artists"; see Guisti, "Guide," 15. On perception and trickery: Ebert-Schifferer, "Trompe l'Oeil," 19. On the rules of deceit: Milman, "'Real' *Trompe l'oeil*," 22–23. For the neurology of trompe l'oeil, see Singer, "Misperception of Reality," 40–51; for the decline of trompe l'oeil, in bourgeois repetition of a tired genre, see Mauriès, "Le trompe l'oeil disparu," 38: "*genre ainsi réduit a l'état de citation ou de fragment, fantôme de lui-même*, "a genre thus reduced to the state of citation or fragment, a ghost of itself." On truth and fiction: Mitchell, "True Masters," 106.

41. Stumpel, "Vatican Tazza," 120. On play: Hersey, *Lost Meaning*, 4. On the "life-sized" rule and violations of it: Mack, *Small Things*, cf. 49, 75. Mack develops a cross-cultural theory—or perhaps better put, an empirical claim, a gleaning from evidence—that the "miniature is a realm of the exquisite." As a copy of larger things, the small may also encourage a severe editing of larger wholes into their essential, elemental features. By contrast, the large is "repulsive." The appreciative reader marvels at the erudition and diversity of evidence yet wonders at the nineteenth-century style of argument: objects, mostly from the British Museum, march into view as illustrations of presumed pan-human beliefs.

42. For a study of cross-media design in the Recuay Valley of Peru that offers these thoughts and citations, see Lau, "Work of Surfaces," 261. Relevant inspirations for Lau are in DeBoer, "Interaction, Imitation, and Communication," and DeBoer, "Decorative Burden." Cross-relations of Polynesians and tattooing, relevant to the concept of "axes of coherence," receive their deepest discussion in Gell, *Wrapping in Images*. Lau, who envisions multilateral, cross-media transfers of design, focuses on the "negativization," by which he means "design, within a bounded unit, conceptualized or rendered through its background or reverse image, like a film negative or cookie mould"; Lau, "Work of Surfaces," 263. Also, Gell, *Art and Agency*, 165–68.

43. See Ortman, "Conceptual Metaphor," 617–19, "Architectural Metaphor," 229–31, "Cognitive Semantics," and "Bowls to Gardens." Ortman was most helpful in sharing his publications, including that in press. For other work on cross-modal metaphors, language only one expression of many, see Forceville and Urios-Aparisi, "Introduction," 4–5, and throughout volume. See also Tilley,

*Metaphor and Material Culture*, 21–33, 264–73. Tilley accords marquee status to "material" or "solid metaphors," especially seeing them as existing beyond language but, like language, with the ability to associate and combine. On metaphor: Lakoff, "Neural Theory," 23–29, reviews research on the primacy of metaphor, conceptual blending, and analogical thinking to neural processing. Metaphors are seen as physical to the brain, "circuits linking two domains… simultaneously active," composed of "primary metaphors … learned by the hundreds," 26. Indirectly, Lakoff may reveal the special efficacy of material metaphors as bindings: "a mere metaphor (understanding the target in terms of the source) is crucially different from that metaphor plus a binding of source entities to target entities," 31. For a *fête galante* of neuroscience and art history as empathetic, aesthetic response, see Freedberg and Gallese, "Esthetic Experience."

44. "Auguries of Innocence" (c. 1803), stanzas 1 and 2. Second quotation from Tilley, *Metaphor and Material Culture*, 57. On Spider Woman: Wilson, "The Spider"; Taube, "Spider Woman"; Berlo, "Double Woman," 37–38.

45. On "marking," see Waugh, "Marked and Unmarked"; Battistella, *Logic of Markedness;* for broad, non-linguistic use of "marking" as an organizational concept, see Brekhus, "Sociology of Unmarked"; also, Waugh, "Poetic Function," 74.

46. See the summary checklist of such attributes in Greenberg, "Present Status," 368–69. On levels of salience and critiques of "marking," Haspelmath, "Against Markedness," 63: "On the contrary, it seems that the 'intuitive' shared sense of 'marked/unmarked' is not distinguishable from the sense of everyday words like *uncommon/common, abnormal/normal, unusual/usual, unexpected/expected.*" On metaphor in African building: Blier, *Anatomy of Architecture*, 37, 40, and 220.

47. An elegant summary of primordial effects of ancient vessel forms on early Chinese metalwork is in Bagley, *Shang Ritual Bronzes*, 15, 26, 60 fn. 182. Bagley has also detected, albeit with later examples, the copy of textiles onto bronze vessels, in *Max Loehr*, 24 (fn. 58), 52 (fn. 177). In a personal communication, Bagley notes the influence during the second half of the first millennium B.C. of spectacular plays of color in embroidered silk and lacquer [November 2011]. By a curious return, these bronze forms were reproduced in ceramic during the reign of the Qianlong Emperor, A.D. 1736–1795; Schnapp, *Discovery*, 74. For pottery origins in early Mesoamerica, see discussion of cucurbit prototypes in Lowe, "Civilizational Consequences," esp. 217. Cooking may even have taken place by dropping hot stones into such containers; see Lowe, "Civilizational Consequences," 218; Clark, Pye, and Gosser, "Thermolithics," 29; also, same volume, Voorhies and Gose, "Stone Boiling," 58–59. For Classic and Preclassic-era use of drinking gourds, see Saturno, Taube, and Stuart, *San Bartolo: North Wall*, fig. 24.

48. Vickers and Gill, *Artful Crafts*, 105–53, and, for broader parallels, 178–90; for criticism of the Vickers-Gill hypothesis, see Cook, "'Artful Crafts.'" On Chinese evidence: Rawson, "Chinese Silver," 275–99. The special value of Chinese bronze as an elite marker is stressed in Wu, *Monumentality*, 65–69, a source recalled to me by Claudia Brittenham; the quotation about jade is also from Wu Hung, 26, quoting Dissanayake, *What Is Art For?* 99. For Wu, this innovation coincides with the need for new markers of political authority. On the Pacific coast of Guatemala: Clark and Blake, "Power of Prestige"; Clark and Gosser, "Reinventing Pottery," 209–19. On innovation: Liebmann, "Innovative Materiality."

49. Bynum, *Wonderful Blood*. On "methodological atheism": Berger, "Definitions of Religion," 133; also, Porpora, "Methodological Atheism," 57. On "occult technicians": Gell, "Technology of Enchantment," 49. An influential work on magical mimesis, emphasizing representation as a means of defining and controlling relations with others, is Taussig, *Mimesis and Alterity*. Taussig sees "mimetic aptitude as an anthropological constant, suggesting that the ability to mime, and mime well, is the capacity to Other," i.e., to establish differences between self and, often, a colonial or imperial non-self; Eaton, "Between Mimesis," 818–19. Similar ideas appear in Santos-Granero, "Hybrid Bodyscapes," 478. For a highly critical, even "unsympathetic," comment on Taussig and his bibliographic gaps, see Jay, "Unsympathetic Magic"; a literary discussion of mimesis occupies Prendergast, *Order of Mimesis*. On "reality not fiction": in response to Veca, "Honest Lies," 55. On marking the sacred: Stumpel, "Vatican Tazza," 122–24; Stumpel calls particular attention to the hardening or marked replacement of materials in a process he terms "petrification." See, too, Hersey, *Lost Meaning*, 11–45. On *baah:* Houston, Stuart, and Taube, *Memory of Bones*, 58–81.

50. Note, however, the heightened contrast, in that the enduring ceramic held the same perishable contents.

51. For non-Maya examples from the coastal region of Guatemala, but still Classic-era in date, see examples from the Museo Popol Vuh, Guatemala City, nos. 3041, 3046, 3295, 3305, 3457. All but one show globular bowls or vases on "pedestal supports," in fact joined into one ceramic; the exception, no. 3457, nests a necked vessel within a shallow "bowl." For miniature Maya vessels, see Foias, "Ceramic Production," 491–92, 548, fig. 6.15e; also, Inomata, Triadan, and Pinto, "Vessels," figs. 8.25.f, j, 8.27, f, g. For synecdoche in building: Proskouriakoff,

*Album*, 51–53. Andrew Scherer reminded me to mention this curious illusionism. On Nocuchich: Maler, "Forschungen," 281–82; Pollock, "Chenes Ruins," fig. 53; note that a similar feature at the site, "Structure 2," is more clearly a reproduction of a building with roof comb.

52. Colonial Tzotzil: Laughlin, *Great Tzotzil Dictionary*, 247; Poqom: Feldman, *Poqom Dictionary*, 87, 92; Yukatek: Barrera Vásquez, *Diccionario Maya Cordemex*, 41, 83. A standard source on Maya humor in ethnographic contexts is Bricker, *Humor in Chiapas*. On monkeys: Coe, "Supernatural Patrons." On "copying" in Mayan languages, Ch'olti': Robertson, Law, and Haertel, *Colonial Ch'olti'*, 327; Ch'orti': Wisdom, "Ch'orti' Language," unnumbered note card; Colonial Tzotzil: Laughlin, *Great Tzotzil Dictionary*, vol. 1, 188; Yukatek: Barrera Vásquez, *Diccionario Maya Cordemex*, 216.
53. Houston, "Maya Depictions," 348–57.
54. For discussion of such tropes, see Houston and Inomata, *Classic Maya*, 145; the gloss for *ch'am* as "harvest" is in Wisdom, "Ch'orti' Language," unnumbered note card.
55. For the *k'ex* concept, see Taube, "Birth Vase."
56. Coe, "Art and Illusion," 52–62.
57. Benjamin, "Mimetic Faculty," 333.

### Chapter 3. The Life Within

Epigraph: Lorraine Daston, "Speechless," in *Things That Talk: Object Lessons from Art and Science*, edited by Lorraine Daston (New York: Zone Books, 2004), 13.

1. For a historical overview of one such project, the most comprehensive thus far, see Vogt, *Fieldwork*. Involving many students, such fieldwork followed the impulse to examine smaller and more manageable settings. From them would emerge, as proved to be the case, many streams of local complexity, along with comment on humans more generally. Still thriving are studies of Maya spirituality, as in Carlsen and Prechtel, *War for the Heart*. But the boundaries of other research have changed, to a world made smaller by global economies, political violence and identity formation at the regional level, international migration, and ecological alteration. For such work, see, e.g., Grandia, *Enclosed*, passim.
2. Latour, *Reassembling the Social*; Hodder, "Human-Thing Entanglement." On subjectivity in objects: Gosden, "Objects Want," esp. 196–97. The title is taken from Mitchell, "Pictures 'Really' Want," and Mitchell, *Lives and Loves*. Granting pictures the possibility of subjectivity, Mitchell then takes it away, as in the bewildering if coy statement: "What pictures want in the last instance, then, is simply to be asked what they want, with the understanding that the answer may well be, nothing at all," 82. Outside of cult objects, such usage in art history becomes more metaphoric than a means of direct explanation—the picture works "as though" it were alive and sentient or desirous. For his part, Gosden cites Gell, *Art and Agency*, but seems not to heed Gell's lengthy exposition on "volt" energy, "distributed persons," and the nature of "idolatry," which covers a good part of that book, 96–154. A thoughtful application of this approach, as influenced by French philosophy, is in Normak, "Triadic Causeways." Amazonian testimonies: Descola, *Society of Nature*; Descola, "Constructing Natures"; the problems of doing comparison vex and stimulate in Viveiros de Castro, "Perspectival Anthropology." Reindeer herders in Scandinavia: Ingold, *Perception of Environment*, although, in fairness, Ingold notes the conceit and problems of presumed universality. For another review: Harvey, *Animism*, esp. 205–12. Reimagined humanity is in Haraway, *Simians, Cyborgs, Women*, and Haraway, *Species Meet*; also, Wolfe, *Posthumanism*. For the needed renewal of "astonishment," see Ingold, "Rethinking the Animate." A recent plea for quasi-animism is in Bennett, *Vibrant Matter*, esp. 110–22, a chapter entitled, revealingly, "Vitality and Self Interest." The goal is to dethrone human primacy and to find joint causation in broader interactions of matter. Bennett's view of "vital materiality" is as "an active becoming, a *creative not-quite-human force capable of producing the new*," 118 (italics in original). Mentioned twice in passing, "animism" is a "discredited" philosophy (18). This curious judgment matters little to anthropologists or, if they could comment, the ancient Maya.
3. He did have precursors, as in Xenophanes from ancient Greece (fl. 540 B.C.): "But if cattle and horses or lions had hands, or were able to draw with their hands or do the works that men can do, horses would draw the forms of the gods like horses, and cattle like cattle, and they would make the form of their bodies such as they each had themselves"; Kirk, Raven, and Schofield, *Presocratic Philosophers*, 169. Yet Xenophanes was no atheist—he aimed his ridicule at Homeric conceptions of gods. Also, Hume, *Natural History*, 11; and, in several of Stewart E. Guthrie's works: Guthrie, *Faces in the Clouds*; Guthrie, "Animal Animism"; Guthrie, "Anthropology and Anthropomorphism"; Boyer, *Religion Explained*, esp. on "agent detection"; see also Atran, *Gods We Trust*.
4. Kuklick, *Savage Within*, 279–95; also, Stocking, *Victorian Anthropology*, 182. Tylor and his precursors: Tylor, *Primitive Culture Researches*, 431. Robert Marett went one better than Tylor, both attacking him and arguing for "pre-animistic religion" among those peoples for whom "thought breaks down"; cited in Stocking, *After Tylor*, 166. Precursors include the "fetishism" of Auguste Comte, or, earlier still, the remarkable comparative

effort of Brosses, *Du culte*, as in, *j'avertis d'avance que je compte en fair êgalement usage en parlant de toute autre nation quelconque, chez qui les objets du culte son des animaux, ou des êtres inanimé que l'on divinise*, "I warn in advance that I also use this equally when speaking of any other nation, in which the objects of worship are of animals, or inanimate beings that it deifies." Further discussion in Masuzawa, "Troubles with Materiality," and Masuzawa, *Invention of World Religions*. Attention to Tylor's historical setting at a time of spiritualism is in Stocking, "Animism in Theory"; also, for the suggestion that others have misread Tylor, who was less concerned than often thought with the matter of origins, Stringer, "Rethinking Animism." On Piagetian approaches, see Piaget, *Construction of Reality*; for the counterclaim that animism concerns less a stage of development than a poorly sorted ability to distinguish between the animate and inanimate, see Bullock, "Animism in Childhood." On motivations: Epley, Waytz, and Cacioppo, "Seeing Human," esp. 871. On fetish: for discussion on this term, which descends from contacts with Africa, see Pels, "Spirit of Matter"; this article focuses on fetishes as the "Other," which has, 99, an "aesthetic value that radically distinguishes it as a material object from the subject it confronts." Other sources: Pietz, "Fetish." For psychoanalytical approaches, to the foundation itself: Freud, "Fetishism."

5. Gell, *Art and Agency*, 122–23. Yet Gell, on 131–37, gives away the game by referring to the "homunculus," or "little man," in such objects. Also, Hallowell, *Contributions*, 362, 367, 374. The Ojibwa describe such "other than human persons" as "owners" and "masters," especially those in charge of game. The essay was first published in Hallowell, "Ojibwa Ontology." On knowing: Bird-David, "Animistic Epistemology," esp. 44–45. See also Bird-David, "'Animism' Revisited," strong on the settings by which animism is perceived among the Nayaka in southern India.
6. Descola, "Constructing Natures," 87. Comments on houses appear in Descola's impressive ethnography, *Society of Nature*, esp. 119, 121; on the relations of nature to society, 326–27. A second Amazonian specialist, and another scholar of great subtlety, is Eduardo Viveiros de Castro, who similarly focuses on social interaction. For him, by radical contrast with European worldviews, "the Amerindian conception would suppose a spiritual unity and a corporeal diversity"; Viveiros de Castro, "Cosmological Deixis," esp. 472–73. To Viveiros de Castro, "animals are ex-humans" in the Amazon; see Tsintjilonis, "Flow of Life." On "subjects" and "objects": Viveiros de Castro, "Exchanging Perspectives." Morten Pedersen implies that this oversight stems from the Amazonian evidence, but also exposes his own preconception about matter: souls may inhabit "dead nonhuman matter" as opposed to "living non-human skin in animals, as in the Amazon"; Pedersen, "Totemism." Left unexamined is the general applicability of terms like "dead" and "living." On Descola's views: Descola, "Beyond Nature." On Ingold's views: Ingold, *Perception of Environment*, 113.
7. On *k'ux:* Kaufman and Norman, "Proto-Cholan," 123, reconstruct the word, *qux or *kux, long before. For Yukatek: Acuña, *Calepino Maya*, 128–29. The spellings are in the original Spanish. On Tzotzil concepts: Vogt, *Zinacantan*, 369–71, which situates *ch'ulel* in the heart but also subdivides it into thirteen parts; if some are lost, they are recoverable from the earth, *lok'esel ta balamil*, for replacement in the afflicted body; Vogt, *Tortillas*, 18–19. Other discussion of *ch'ulel* from Cancuc, a Tzeltal Maya community in Chiapas, describes it as the seat of thought, emotion, memory, dreams, and the source of language, living in the heart but also, split from the body, in far caves; Pitarch Ramón, "Las almas," 45. For comparable concepts from Mexico, especially of the Sierra Otomí, a non-Maya group, see *zaki*, in Dow, *Shaman's Touch*, 26, 32. *Zaki* both animates the world and induces endless change of vegetal growth and solar movement. On Tzotzil "fright": Guiteras Holmes, *Peligros del alma*, 237–38.
8. Furst, *Natural History*, 14–22, 63–67, 175–83. Alfredo López Austin distinguishes between "animistic entities," the forces that can shift location, and "animistic centers," where such forces may reside; López Austin, *Body and Ideology*, 181–201; see also Graulich, *Montezuma*, 287: *Dans d'autres composés, teo peut encore signifier terrible, ardu, effrayant ou dangereux, soleil, sacré, exceptionnel*, "In other compounds, *teo* can also mean terrible, difficult, frightening or dangerous, solar, holy, unique." For testimony elsewhere on the energies or "animate entities" within human bodies, see Lupo, *Tierra nos escucha*, 112–13, which describes the Nahuatl concept of *yolo*, "indivisible, immortal until death" (*indivisible, inmortal e insperable del cuerpo hasta la muerte*), and a cold, dark, nocturnal entity connected to "shadow" (*sombra*), and a hot, shining, diurnal, and celestial spirit, the tonal. Unlike the *yolo*, the last two, the "shadow" and *tonal*, may be lost, damaged, or destroyed, both a "source of energy and an Achilles tendon" (*fuente de energía y talón de Aquiles*). The definitive study from early Colonial Nahuatl is López Austin, *Body and Ideology*, 181–236, which locates such energies in different parts of the body. On animacy in musical instruments: Mills and Ferguson, "Shell Trumpets," 343, 355–56. The trumpets have two functions, to summon

rain and corn; and to mark warfare, combat witchcraft, and facilitate curing. On Q'eq'chi': Boremanse, "Sewing Machines," 14; also, Carlson and Eachus, "Kekchi Spirit," 44–47; discussed in Stuart, *Order of Days*, 67–75, fns. 1–7, 328. On the "heat" of offerings like liquor, cigarettes, candles, and blood: Wilson, *Resurgence*, 121. Contrary to Carlson and Eachus, Wilson blends the spirits of humans with those of "houses, saint's images, maize, bodies of water, and the mountains"; Wilson, *Resurgence*, 143–44. His ethnography focuses in part on relations between humans and watchful mountain spirits that need placation. Hanks, *Referential Practice*, 242–47, 338–39. For such pebbles as the "body" or "flesh" of gods, *k'ub*, among the Lacandon Maya, see Boremanse, *Hach Winik*, 96.

9. Altars are focusing spaces, common in Maya ethnography, that replicate in smaller frames the corners and center-posts of the cosmos, but also function as places for the sharing of divine "food"; see Monaghan, "Shamanism, Colonialism," 141–48. The altars "reduce this infinity [of spirits] to a manageable size," so that exchanges may take place with humans as mediated, among Nahua speakers, by hundreds of cut paper images that may depict "inanimate objects," in Sandstrom, "Sacred Mountains," 56, 63. A useful source is by the Swiss-born ethnologist Girard, *People of Chan*, 149, 151, 213, 216, 390, offering descriptions for what appear to be now-vanished practices among the Ch'orti' Maya of Guatemala and Honduras. Throughout, Girard cannot decide whether features of these altars "represent" or "symbolize" beings invited to occupy them, or whether such beings enter posts, candles, or rocks as a species of Real Presence; e.g., Girard, *People of Chan*, 216, 250, but see also 277: "it [the tree of blessings, rain, and seeds] is not merely a representation or symbol, but also has the same effectiveness. It is able to do this thanks to the divine force that animates it and that confers on the image its magico-religious potency." Consistent with such vitality, rattles can be understood to "speak." Girard remarks, too, about how objects are decoupled from their spiritual energies, if in ways that necessitate special acts of disposal in sacred springs and whirlpools; Girard, *People of Chan*, 322–27. To be sure, Girard was accused of ersatz or misinterpreted evidence and an overly synthetic view of Maya practice, for him strongly residual from the Pre-Columbian period; see Starr, "Chorti Problem."

10. The best account of one intercessionary object—crosses—remains Vogt, *Zinacantan*, 375–415. For "talking saints" among the Tzotzil, where an image responds to clients and supplicants with "a pattern of knocks, or a voice," see Fabrega and Silver, *Shamanistic Curing*, 44. On Yukatek practice: Hanks, *Converting Words*, 369. On Tzotzil belief: Vogt, *Zinacantan*, 329–30. For debt, see Monaghan, "Theology and History," 36–39; for a debt-focused interpretation of hunting shrines around Lake Atitlan, Guatemala, see Brown and Emery, "Animate Forest," 329–32. On divides between wild and domesticated space, ancient and present: Taube, "Field and Forest." Wild spaces shift by night, coming close to human dwellings, allowing entrée to "the strange and uncanny"; Watanabe, *Saints and Souls*, 64.

11. Translation from Christenson, *Popol Vuh*, 86–90. A close parallel is in Moche iconography; Quilter, "Moche Revolt." The iconography fixes on weaponry turning on warriors, but there is also a colonial account: "They recount that in remote times the sun died. Because of its [the sun's] death five days passed like nights. And then the rocks banged against each other. Furthermore, the mortars and grinding stones began to eat men. And the male llamas began to drive humans," Quilter, "Moche Revolt," 46. Traditional Japanese belief also envisions nightmarish transformations of objects, with nightly parades of demons. The objects, *tsukumogami*, seek vengeance after being thrown away, Lillehoj, "Transfiguration," 21–28. Another study uncovers the roots of such beliefs in Shinto notions of objects with spirits; Reider, "Animating Objects," 251–52.

12. For a burst of topical attention to "persons," see Carrithers, Collins, and Lukes, *Category of Person*; Cohen, *Self Consciousness*; and Kray, "Worship in Body." The ultimate source is Mauss, "Catégorie de L'Esprit." Notions like these find little place in Western philosophy, which, in some writing, cherishes a claim for human exception; see Heidegger, "Origin of Art," 653. For Heidegger, a human can never be a thing, except in rhetorical speech. For discussion of "communicating objects," see Astor-Aguilera, *Communicating Objects*, 102–3, 114, 206, 230–32; citations therein of Houston, Stuart, and Taube, *Memory of Bones*, 59, 67, 72–74, 98, 179.

13. For initial discussion, see Stuart, "Blood Symbolism"; further work on *k'ub*, in Houston and Stuart, "Gods, Glyphs, and Kings." The reading of *k'ub* from the syllables **k'u** and **hu** is confirmed, among other places, in Coe and Kerr, *Art of Scribe*, pl. 44, position B1. The Maya versions of "scattering" are probable borrowings of similar motifs from the Mexican city of Teotihuacan; see Miller, *Mural Painting*, figs. 307–14. Houston et al., *Veiled Brightness*, 28–30, fig. 2.10. For discussion of "abundance": Stuart, *Temple XIX*, 99–100. The sign with marks of darkness and crossed bones is from Machaquila, Guatemala; see Ponce de León and Lacadena García-Gallo, "Nuevos hallazgos," fig. 5. For ancestral shells: Finamore and Houston, *Fiery Pool*, pls. 40–45, entries

by Cassandra Mesick, Karl Taube, Nicholas Carter, and James Doyle. Also, Houston and Taube, "Water and Sea." For clouds: Jones and Satterthwaite, *Monuments and Inscriptions*, figs. 16, 22, 68, 81; Tikal Stelae 11, 22; Ixlu Stelae 1, 2; Jimbal Stela 1. Smoke has no such beads along its edge; cf. fig. 32.

14. The tie between blood and personhood is also stressed by the Mam-speaking Maya of Highland Guatemala, who similarly connect breath to soul essence; Watanabe, *Saints and Souls*, 83, 87–88. Nevertheless, there appears to be a distinction between enduring souls and a hard-won social sensibility that dissipates at death. Watanabe, the reporting ethnographer, traces these complexities to a "dialectic between the public and the personal, the emergent and the essential," a matter of "local identity" and "the transcendence of *aanma* [soul]," 89; Vogt, *Tortillas*, 18–19. Also, Houston and Inomata, *Classic Maya*, 196, fig. 7.3; Zender, "Maya Priesthood," 164–95. For the *-il* particle: Houston, Robertson, and Stuart, *Quality and Quantity*, 11–12, fig. 11.

15. Kaufman, *Etymological Dictionary*, 458–60; also, Pitarch Ramón, "Las almas," 45. Radiant energies are also described in Metz, *Ch'orti'-Maya Survival*, 138, where healers "adjust this energy" to "combat the evil winds that carry illness." The unity and divisibility of "God" express themselves in Ch'orti' ideas that rain or clouds are "God" and that polytheism is an unacceptable view of the world; Metz, *Ch'orti'-Maya Survival*, 125. Superb exegesis of broader concepts is in Monaghan, "Theology and History," 25–28, which cites Klor de Alva, "Christianity and Aztecs." For central Mexico, see also Burkhart, *Slippery Earth*, 36–37. For a range of Nahuatl terms with this term, see Karttunen, *Analytical Dictionary*, 227–28. The classic source on Aztec concepts of *teōtl* is Hvidtfeldt, _Teotl and *Ixiptlatli_, 76–78, 140, which likens it explicitly to the Polynesian concept of *mana*. Hvidtfeldt's belief in the correlation of religious concepts is now unfashionable, undermined by the specifics of meaning and history. For *mana*, see Keesing, "Rethinking *Mana*," which sees it less as a cross-cultural notion than a term rooted in political developments within Polynesia. For Carlos Mondragón, in "Winds, Worms, and *Mana*," *mana* is a productive, almost agentive capacity for transformation that attaches to persons and personified things, both animate and inanimate; Mondragón, "Winds, Worms and *Mana*," 291. Robert Blust perceives the origins of the word in terms for thunder and storm winds; Blust, "Proto-Oceanic *mana." The language of reciprocity is usually of payment, as in Metz, *Ch'orti'-Maya Survival*, 124, based in turn on notions of moral behavior, conceived in terms of "straightness."

16. Taube, *Major Gods*. La Pasadita: The lintel, now in Museum Volkenkunde, Leiden (#3939-1), dates to A.D. 766 and shows Bird Jaguar IV of Yaxchilan with his local underling, Tiloom; Grube and Gaida, *Die Maya*, 180–84, abb. 26. Yaxchilan: Yaxchilan "Stela 31," with photos in the Corpus of Maya Hieroglyphic Inscriptions archive at the Peabody Museum, Harvard University. Other such scenes adorn Stelae 3 and 6. Stela 4 shows the sign for "yellow" within a flower, and the nobleman holds his hands upright as though to receive the flow of *k'uh*; see, for illustrations, Maler, *Researches in Usumatsintla*, pls. 69 (St. 1), 70 (St. 4), 71 (St. 6); Morley, *Inscriptions of Peten*, pls. 100c (St. 1), 101d (St. 6), 100d (St. 7), and 103e (St. 27). Stela 27, although eroded, reveals a rare Maya reworking of a sculpture; Martin and Grube, *Chronicle*, 120–21. Some 150 years after its initial carving, a later ruler added a stream of *k'uh*. The positioning is awkward—the flow barely has space to ooze under a royal title and over knotted cloth or paper. Most likely, the original scene differed. Perhaps it showed a scattering of incense, an act without the same theological import of later rituals: anyone can scatter such pellets, presumably, but only rulers could emanate *k'uh*. On the godlike titles of kings: Houston and Stuart, "Gods, Glyphs, and Kings," 295–96.

17. Saturno, Taube, and Stuart, *San Bartolo: North Wall*, 11–12, figs. 7–8, and special supplement; Taube et al., *San Bartolo: West Wall*, figs. 5, 16, 27, and special supplement (center, right).

18. David Stuart, personal communication, February 2012.

19. That the San Bartolo murals show early Maya kings needs hedging: there are no secure historical personages in the murals, all of which show mythic scenes. A secondary claim, that these images chart out templates for current royal practice, is plausible but unproven. One scene on the West Wall, to viewer's right, resembles later accessions to rule, with an enthroned figure on a scaffold about to receive a royal crown. Yet the figures may well be mythic or supernatural. A symmetrical scene to viewer's left, also with scaffold, leaves little doubt that at least one of these figures is mythical, in this case the Maize God. The problem here is slippery anachronism, the premise that a ceremony evolving, maybe, into a later accession rite served as such in murals. Given the tree trunk, feline pelt, and flowers on the scaffold at San Bartolo, some other associations may well be in play, perhaps having to do with celebrations of calendrical cycles. Speaking of Piedras Negras, Guatemala, in a different context, David Stuart notes (personal communication, July 2005) that scaffolds likely operated in ceremonies concluding the first important celebration in the rule of a particular ruler. The common presumption that they register scenes of accession may be mistaken. Unfortunately, at San Bartolo, the glyphs nearby are not fully readable.

20. K3166 in the Kerr Portfolio of images; Taube, "Earth and Sky," fig. 2.
21. For review, see Brady and Prufer, "Introduction"; Brady and Prufer, "Cave Archaeology"; or, earlier still, Thompson, "Role of Caves," 122, for a comment from Bartolomé de Las Casas that caves in the Alta Verapaz, Guatemala, held sacred effigies, so positioned to enhance reverence for them in restricted spaces and to protect them from enemy predation. A solid study of Chahk, if with a different (and, in my view, mistaken) spelling of the deity's name, is in García Barrios, "Chaahk"; García Barrios, "Aspecto bélico." For cave scene: Kerr Vase #530; Coe, *Lords of the Underworld*, pl. 11. For the *witz* decipherment, see Stuart, *Phonetic Syllables;* for wild or paradisical mountains, Taube, "Flower Mountain." Ana García Barrios, "Chaahk y el pájaro," notes the pot but not the merger with the bird discussed in her article: on the vessel, the forehead feather of the 'O dangles off the stony forehead of the cave. For useful discussion of *k'antuun*, see Lacadena and Wichmann, "Glottal Stop," 146. Nonetheless, the reading of *k'an*, "yellow," as a near homophone, *k'ahn*—or, in Spanish, *silla, asiento, banca, mesa,* "chair, seat, bench, table"—may weaken on glyphic grounds. In Classic times, no object referred to as a *k'antuun* corresponds to this class of objects. The word appears instead on panels and, at Dos Pilas, Guatemala, in connection with a hieroglyphic stairway. The entries that suggest "ladder," as in Mopan *k'aanche'*, Spanish *escalera*, "ladder," occur in a language remote from the language of the relevant inscriptions and, as an incomplete parallel, refer to a different material, *che'*, "wood"; cf. Schumann Gálvez, *Maya Mopan*, 266. Elsewhere, where steps are indicated explicitly, the reference is to the color *k'an*, "yellow." See the *K'anal Ehb*, "Yellow-Place Steps," at Copan, Honduras, Coba, Mexico, and perhaps, in scaffold form, at San Bartolo itself, Taube et al., *San Bartolo: West Wall*, 60–65, figs. 39, 42. In Mayan languages, *k'an* has extended meaning. Vegetal in origin, it exalts the yellow of harvested maize, a "precious" thing, "ripe, mature," Houston et al., *Veiled Brightness*, 35, 37–39.
22. Taylor, "Cauac Monster"; Tate, "Maya Cauac Monster"; Spero, "Beyond Rainstorms." Also, Stuart, "Shining Stones." Chahk in caves: Hellmuth, *Monster und Menschen*, abbs. 172–75, 185, 207. For decipherment of the water serpent, see Stuart, "Water Serpent."
23. Skeates, "'Axe-amulets;'" Carelli, "Thunder and Lightning"; for a Maya example, see Metz, *Ch'orti'-Maya Survival*, 135, describing the "angels" or "working people," *ajpatna'r winikob'*, who throw jade axe heads, seen as lightning, to control serpents linked to earthquakes and landslides. Emerging to find mates, the serpents usually dwell in springs, in lakes, and under mountains. Among Tzeltal Maya, one kind of beneficent "lightning" is known as the green [or blue] "class," *yaxal chauk*, the color of jade and also, with *chauk*, a term cognate with Chahk, the rain god; Pitarch Ramón, "Las almas," 80–81. The so-called "cauac" months in the glyphs all share a semblant of the *tuun* stone, but often with features of Chahk; Thompson, *Hieroglyphic Writing*, 110–13, fig. 17, table 8. The stony head of Chahk with hank of hair is also a syllable read **hi**. The connection is not yet explained. For the panel: Stuart, *Carved Panel*. Dos Pilas Stela 8: Houston, *Hieroglyphs and History*, fig. 4-14, positions G19-F20; Ixlu Altar 1: Jones and Satterthwaite, *Monuments and Inscriptions*, fig. 81.
24. Noted too in Stone and Zender, *Reading Maya Art*, 26, fig. 10a. Stone and Zender comment on an evident conflation between two places, Ucanal and Caracol—elements of both toponyms are present—but such fusion would be rare. Place names usually refer to highly specific locations. The first identification of the place name was in Nikolai Grube, "Epigraphic Research," 97. On speleothems: Stone, "Divine Stalagmites," 232–33.
25. At Copan, Honduras, the local tuffs have a well-known tendency to oxidize once carved. The hardening of a workable, relatively soft material offers advantages to masons and sculptors. But, seen in a different light, the process might also be transformational, a mark of shifted substance; for such stone, see Abrams, *Energetics and Architecture*, 71–72; also, for more recent work, Mesick, "Culture of Construction." For "biographical" approaches to Maya sculpture: O'Neil, "Seen and Unseen." For spolia: Graham, *Altar de Sacrificios*, 93, fig. 60.
26. Taube, "Lightning Celts." A fully figured example from Pusilha, Belize, now in the British Museum, may be in Schele and Miller, *Blood of Kings*, pl. 23. The body is strangely contorted, the arms brought up over the chest, hands bent sharply against the wrists. Three elements near the head recall the trilobate ornaments on royal diadems of the Classic Maya. Nonetheless, the reference may be complicated, both to polished stone and to a mythic eagle. The face on the Pusilha jade resembles this bird, with its Sun God eye, beakish mouth, and dot-marked forehead. On polished surfaces: Schele and Miller, *Mirror, Rabbit, Bundle*.
27. On jade technology: Chenault, "Technical Analysis," 52–74. Chenault notes that approximately 350 hours were needed to finish a carving with traditional Maori techniques. In his own experiments, the saw string broke after some 20 strokes: a "total of 16 hours work resulted in a cut 4.3 cm long, 1.3 cm deep at its deepest point, and 4 mm wide," 65.
28. A flowery stone: Coe and Kerr, *Art of Scribe*, pl. 20. A jade from Palenque: Miller and Martin, *Courtly Art*, 234,

pl. 130. On Pomona: Liendo Stuardo, "Planicies tabasqueñas," 136, from the balustrade of Building 4. Also, García Moll, *Pomoná*, láms. 6-15 and 6-21. Building 4 faces the east and would meet the full blaze of dawn each morning, perhaps with striking effect on these inserts.

29. Miles, *Pokom-Maya*, 749; Houston, Stuart, and Taube, *Memory of Bones*, 142. For discussion of breath, flowers, jade, and souls: Houston, Stuart, and Taube, *Memory of Bones*, 141, 143, 147–52; also, Taube, "Symbolism of Jade." On flowers: Stuart, "Flower Symbolism." For jade masks, see Nadal, *Misterios de rostro maya;* Finamore and Houston, *Fiery Pool*, pls. 40, 41, 44, 45, 99; pl. 46 is an example of a closely observed bivalve in jade.

30. Stuart, "Kings of Stone," 154–58. The chief example of a celt is the celebrated Leiden plaque, which bears a date that may be earlier than its style of carving; in Schele and Miller, *Blood of Kings*, pl. 33; see also Finamore and Houston, *Fiery Pool*, pl. 97. On China: Bagley, "Percussion," 34–63, 120–27, 136–37; von Falkenhausen, *Suspended Music*. For gourd glyphs: Fox and Justeson, "Linguistic Evidence," 213; example in Miller and Martin, *Courtly Art*, pl. 72, position D1. On metaphor: Sachse, "Forms and Patterns."

31. For dramatic confirmation, see Hruby and Ware, "Painted Lithic Artifacts"; also, Hruby, "Chipped Stone Production." For incised obsidians at Tikal, Guatemala, see Moholy-Nagy, *Artifacts of Tikal*, 24–26, pls. 3–4. For an assortment of eccentrics, see Coe, *Piedras Negras Archaeology*, figs. 4–19, 21–37; Willey, *Artifacts of Altar*, 181–207, figs. 160–89. For eccentrics: Miller and Martin, *Courtly Art*, pls. 78–82. Zachary Hruby has drawn eloquent attention to this possibility: the technical properties and orientation of the worked material "may have been marked by where certain gods 'resided' in the core as flakes and blades"; Hruby, "Chipped Stone Production," 80. This view recalls, by far analogy, Michelangelo's view of sculpture: *Non ha l'ottimo artista alcun concetto c'un marmo solo in sé non circonscriva col suo superchio, e solo a quello arriva la man che ubbidisce all'intelletto* (Sonnet 151: "Nothing the best of artists can conceive but lies, potential, in a block of stone [marble], superfluous matter round it. The hand alone secure it that has intelligence for guide"); translation in Nims, *Poems*, 96, with slight adjustment by me.

32. Houston and Martin, "Mythic Prototypes."

33. In the twentieth century, the Lacandon Maya would sing to flint and fast before working it into arrowheads. This suggests that animacy required a response from the craftsman or, perhaps, that these rituals induced its very existence; Clark, "Obsidian Sources," 305. For plants and ancestors: Miller and Martin, *Courtly Art*, 62–63, fig. 26, pl. 33; see K631, K1226, K2785, K4546, K6547. Also, Grube and Gaida, *Die Maya*, 117–31, abbs. 12.13–16.

34. Brady and Prufer, "Caves and Crystalmancy," 131.

35. On images: Houston, Stuart, and Taube, *Memory of Bones*, 72–76. For Nahuatl concepts: Hvidtfeldt, *Teōtl and *Ixiptlatli*, 81, 85, 140; López Austin, *Mitos del tlacuache*, 191–94, with particular emphasis on these images as "vessels" for godly energy; see also 191, "*Se reconocen en ellas, y las porciones de fuerzas divinas se vierten en sus recipientes visibles. Así, los dioses llenan las formaciones naturales, y el hombre descubre la presencia de los dioses en las rocas que se les parecen*" ("they [the spirits] are recognized in them [the images], and parts of divine powers are shed into their visible receptacles. In this way, the gods fill natural formations, and man discovers the presence of the gods in the rocks that resemble them"). For Nahuatl morphemes: Karttunen, *Analytical Dictionary*, 115, 121, 325, 339. On mutilation: Just, "Modifications of Sculpture"; Mesick, "Modification of Monuments."

36. Dean, *Culture of Stone*, 36, 39 (stones coming to life and returning to stone), 44–46 (stones as owners of territory and as culture heroes), 53–56 (stones that echoed the solar passage and distant hills), 81–90, 111 (stones that integrated Mother Earth, as conceptualized locally, with the desires of Inka rulers). On Mixtec concepts: Smith, "Mixtec Manuscript Painting and Language," 65–71. On Aristotle: Aristotle, "On Souls," *Complete Works*, book 3, part 8. On the gradient of animacy: Nuckolls, "Sound-Symbolic Expression," esp. 365–66. On transmission and substance: Dean, *Culture of Stone*, 63, 130–41.

37. Parkes, "Role of Rock," 89, 91, 100. For "tapping" and "sonorous stones," see Hay, *Kernels of Energy*, 22–23.

38. Hay, *Kernels of Energy*, 44. Rambelli, *Buddhist Materiality*, 54. Rambelli observes much dissent in Buddhist discussions of animacy in things but, above all, a biographical "humanization" of objects: they are "born (produced) . . . had a life (use, function), and [are] going to die (disposal)"; Rambelli, *Buddhist Materiality*, 223. For Rambelli, this relates to the effects of early capitalism on Japanese urban society. For Yukatek: Barrera Vásquez, *Diccionario Maya Cordemex*, 560, 816.

39. The standard sources are Freedberg, *Power of Images;* Belting, *Likeness and Presence;* Besançon, *Forbidden Image*. For shifting devotional practice, and the claim of artists to trigger emotion not simply to channel divine grace, see Trexler, "Being and Non-Being"; Trexler detects a sea change from "single-material images . . . into cloth covered images whose underlying substance proved finally to be less than met the eye" (italics removed from original), 23. See Koerner, *Reformation of Image*, for how images can accommodate

religious ambivalence about them; also, Morgan, *Sacred Gaze*, 106. On Mopan: Danziger, *Relatively Speaking*, 31–32, quotations from these two pages.

40. Pope, *Story of Decipherment*, 16–32.

41. Figurations of alphabets suggest a different aim, to dazzle and amuse. The animated letters of Giovannino de' Grassi, working in late-fourteenth-century Milan, are crowded with wild men and the lapdogs of ladies; e.g., Rossi, *Giovannino de Grassi*, 57, pls. 17, 40, 57; for Rossi, incidentally, these were workshop productions, with variable handling of depth and composition. Other such letters, as in the far earlier Book of Kells from ninth-century Ireland or Scotland, merely introduce passages but also work to "baffle, awe or impress"; Drucker, *Alphabetic Labyrinth*, 99, see also 104–14. Drucker offers a parade of embodied letters, which descend logically from initials in early medieval books. She also suggests a historical reason for likening a human frame to a letter: their ideal, harmonious proportion recalls the perfect body bestowed on Adam by God; Drucker, *Alphabetic Labyrinth*, 163–67. Drucker excavates more than aesthetics, however. Alphabets could have enfolded layers of gnostic import, along with animated, agentive properties—they not only record, they reveal and they *do*; Drucker, *Alphabetic Labyrinth*, 77–92; also, Dornseiff, *Das Alphabet*, 155–57. For similar thoughts, see Kendrick, *Animating the Letter*, 65–109, which explores parallels between the word of Christ made incarnate and written scripture as a living medium for divine spirit. In medieval reading, there was, in her view, an undertow of danger, a "struggle with diabolical forces … to be handled … with ritual precaution"; Kendrick, *Animating the Letter*, 146. Kendrick helps in another way, too, by questioning the "functionalist rhetoric" by which embellishments are seen as aesthetic misdemeanors, "flaws" rather than evocations of deeper meaning; Kendrick, *Animating the Letter*, 238, fn. 1. Of value: Debes, *Figurenalphabeten*, 31–32, 42–49, which traces the shift from figural initials to full presentation of alphabets in the later Middle Ages and more flamboyant versions in the time of Mannerist contortion of human bodies; Boeckeler, "Dramatization," 56, for an argument that professional artists and non-scribes made new use of the alphabet in the Renaissance; see, too, her, "Building Meaning," which shows letters as "edificatory"—architectural features from which words and worlds may be built. Alexandre Tokovinine helpfully provided the latter source. Other aids: Kiermeier-Debre and Vogel, *Menschenalphabete*, and the indispensable, Van Allsburg, *Alphabet Theatre*. An amusing compendium: Demeude, *Animated Alphabet*, which rejoices in the whimsy of such letters and their existence as separate primers, none intended for actual use; see 90–92. Some present identifiable letters against a busy or vibrant background, others form the letters out of human bodies or other actors. Within this class, there is an added twist, those that relate to the letter in some way, as in "A" for "Artemis," the huntress, shown as an athletic woman with a small moon above her head. Discussion of such names, which have invaded pictorial space, occurs in Colas, *Sinn und Bedeutung*. Google is the latest contributor, often putting its logo into animated "doodles" that may be country-specific. For glyphs on shells: Houston et al., "River of Ruins," fig. 3.

42. This classification comes from collaborative discussion with David Stuart, from the late 1980s to the present. The prod was pedagogical. Explaining glyphs to students led to disquiet about whether, in fact, the principles of composition were properly understood. It soon became clear they were not. Another term for such joins is "ligatures"; see Zender, "Diacritical Marks," as in German ß for *ss*. The broadened terminology is an advance, furthering comparison. Yet Maya examples may differ. Elsewhere, ligatures show restriction to certain sound or sign combinations and a tendency to permanent, final fusion. In Egyptian hieroglyphs, they create new concepts or words. This pattern is not seen with Maya evidence, in which, seemingly, glyphs aggregated and disaggregated at will, preserving their individual sound and meaning. For other ligatures, too, time efficiency—writing quickly—trumped the space efficiency and playful embellishment that may have motivated Maya compaction. Finally, "ligature" derives etymologically from acts of tying string or cords. As a kind of sign merger, ligatures cluster in stroke- or line-based scripts or in continuous cursives. Hieroglyphic texts, which foreground discrete objects, are inhospitable to a continuous line. On impersonation: Houston, Stuart, and Taube, *Memory of Bones*, 271–72. On the cursive: Houston, "Writing: Modified," 193.

43. For Egyptian: Fischer, "Composite Hieroglyphs"; Baines, "Communication and Display." For Rongorongo: Fischer, *Rongorongo*. For Luwian: Hawkins, *Corpus of Luwian*. For Assyrian hieroglyphs: Finkel and Reade, "Assyrian Hieroglyphs"; Roaf and Zgoll, "Assyrian Astroglyphs." On China: Boltz, *Origin and Development*, 31–52, fig. 3; Qiu, *Chinese Writing*. For undeciphered systems, such as that on the Phaistos Disk, see Robinson, *Lost Languages*, 141–315.

44. James Elkins describes this process as the "discontinuous repression of pictures," in which breaks occur with the depictive origins of signs and "the character loses its boundaries and becomes an open lattice," *Domain of Images*, 129. See also Houston, "Final Thoughts," 350–52.

45. That early, perceptive observer Herbert Spinden referred to the signs as the "face type," in which some "show bodies as well as heads," forming "complicated hieroglyphs" with marked "elaboration"; Spinden, *Study of Maya Art*, 80–81, 95, fig. 135. The concepts here of "animation" and its various expressions in glyphs came from discussions with David Stuart about how best to categorize and teach Maya writing. "Specific" animation tends to reflect some essential feature of a sign. Faces on maize-related signs, the word-sign **OHL** and the syllable **tzi**, may allude to the youthful maize god; a more transparent example is the face of the youthful Moon Goddess in a moon sign read **ja**; see Schele and Mathews, *Bodega of Palenque*, pls. 37:G1, H1, 420, 446, 471, 478, 483. "Generic" animation usually marks the first glyph in a block of signs, that farthest to the left, facing previous parts of a text; Schele and Mathews, *Bodega of Palenque*, pls. 395, 397, 429; but cf. pl. 439, which animates a final glyph in a block.

46. Houston, "Maya Depictions." Most hieroglyphic systems in other parts of the world also face the direction where reading begins; see sources above, esp. Hawkins, *Corpus of Luwian*, vol. 1, part 3, pls. 5, 7, 11, 15, 17, 19, 21, 23, from boustrophredon (alternating reading order) texts at Carchemish. Mary Miller and Simon Martin stress the puzzles that challenged readers of full-figure glyphs, which took "legibility to its very limits"; *Courtly Art*, 124. A different form of puzzlement, an academic assertion that certain images have willfully indeterminate meaning, is highlighted in Elkins, *Pictures Puzzles*, 40–41, 120–21.

47. Elkins, *Domain of Images*, 244, quotation, with italics, on 240. Similar thoughts, influenced in part by Elkins, occur in Martin, "Pre-Columbian Narrative," 62–63. Elkins describes full-figure glyphs as a "huge unopened field … carry[ing] pictorial meaning within, before, and despite their linguistic function"; Elkins, *Domain of Images*, 57–67, 140–41, 240, 244. His doubts about the purity of these categories are prefigured in Elkins, *On Pictures*, 160–62.

48. Fixated on the temporal content of Maya texts, Eric Thompson detected another reason for "full-figure forms." Outfitted with headband slings or "tumplines," such signs transported units of time as "burdens … carried through all eternity by relays of bearers"; Thompson, *Hieroglyphic Writing*, 59. To illustrate his thesis, only partly supported by evidence, Thompson commissioned a "Journey of Time" from Jean Charlot, the muralist and printmaker; see Thompson, *Hieroglyphic Writing*, frontispiece; compare with Charlot's depictions of bustling building activity among the ancient Maya in Morse, *Charlot's Prints*, pls. 74, 75, 206. For Thompson, the full-figure glyphs offered a freedom from "rigid traditions." As an indirect gift to modern scholarship, they also revealed the animals behind certain signs—the bodiless, wingless "head variants" of the glyphs presented fewer such clues; Thompson, *Hieroglyphic Writing*, 45. Later descriptions refer to "personified forms," as in Schele and Miller, *Blood of Kings*, 326, an observation strengthened in Stone and Zender, *Reading Maya Art*, 21–22, 230. Stone and Zender explore a broader motivation. Thompson was inexplicit about whether his notion of time concerned poetic metaphor or a literal tasking of glyphs as straining, weary porters of time. Stone and Zender refer to "animate beings" who could elaborate into "'full-figure' forms" for "more spectacular effect," "vestigial mouth, nose and eyes" presenting, in "extreme cases … trunk, arms and legs," following a pattern "not distinct in kind from full-figure-glyphs." The essential claim involves shared spirit, "that all things in the universe are living and vitally interconnected"; Stone and Zender, *Reading Maya Art*, 22. These suggestions echo an earlier comment by Mary Miller and Simon Martin, who highlight, not general vitality, but "writing as an animate force," in which "'normal' hieroglyphs were simplified derivatives" of full-figure forms; see Miller and Martin, *Courtly Art*, 139, pl. 70. For another emphasis, see a decisive essay by Stuart, "Kings of Stone," 167, fig. 19; further exposition is in Stuart, *Order of Days*, 252–62. Stone and Zender interpret full-figure signs as, in a sense, points of eruption. A generalized spirit emerges in them, taking shape as enlivened signs. Stuart's focus is directed elsewhere, to Maya time as an entity imbued with certain characteristics, including lordship. Proclaimed as full-figure day signs on stelae, certain temporal units become petrified. To Maya minds, they are fixed in continual display, enthroned with the regalia of high office. The energies thus controlled are regal. Focused on the body of the king, they merge that frail presence with the permanent, mostly immovable bulk of a stone monument. For discussion of Itzam, see Martin, "Old Man," from a reading by David Stuart. For Xcalumkin, Column 3: A5, see Graham and von Euw, *Uxmal, Xcalumkin*, 175; Copan, Xukpi Stone: B1, 9.0.2.0.0, A.D. 437. For discussion of such birds, see Simon Martin, "Old Man." For Tonina, see Graham et al., *Tonina*, 113, 119. The San Bartolo example appears in a text shown to me by David Stuart. Under my tutelage, Kate Blankenship prepared a solid paper on the subject of full-figure signs, but the work here is my own, and its compilation precedes hers.

49. The fundamental source is Taube, *Writing System*, esp. fig. 5.10; also, Taube, "Development of Writing." An older perspective is Langley, *Symbolic Notation*. One of the few examples of linear Teotihuacan text comes from

a zone of intense contact with other peoples, including Maya speakers; Taube, *Writing System*, fig. 27. The historical and archaeological setting of the Copan references is in Stuart, "Arrival of Strangers"; also, Stuart, "Copan Dynasty." Another pairing of macaw and quetzal, necks entwined, occurs on a lidded bowl from lowland Guatemala; Hellmuth, *Monster und Menschen*, abb. 31. The bowl dates to roughly the same time as the birds at Copan, as does a fusion of the two creatures in a mural from Teotihuacan, Mexico. This connection may not be a coincidence: for Karl Taube, the mural alludes to the ruler at Copan, a view made plausible by other links between the cities; Taube, "Tetitla," 278–80, fig. 11.3. An alternative, still consistent with Taube's suggestion, is that a mythic pairing of birds found an echo in a royal name. The evidence is from a Late Classic image, far from historical in nature: a dwarf offers a quetzal and macaw (or parrot) to God D, an important deity (see K7727). The two birds may also mark the wings of descending deity on a Teotihuacan-style incense burner from the area of Escuintla, Guatemala; Chinchilla Mazariegos, "Vagina dentada," figs. 8–9; Chinchilla favors a mythic interpretation for the birds, seeing them as inspirations for the royal name at Copan, 128–29. Examples of full-figure signs with Teotihuacan influence are on the Marcador from the Mundo Perdido complex at Tikal, Guatemala; Laporte and Fialko, "Mundo Perdido," fig. 46, positions D1 and F9, and in the feathered rosette above. Note that syllabic clues indicate a Maya reading for the signs, not one in a central Mexican language. A set of animals in Teotihuacan style, albeit in hybrid interplay with Maya conventions, appears in what may be stylized mountains on the stucco facade from the mid–first millennium A.D. at Acanceh, Yucatan; Seler, "Die Stuckfassade"; cf. Helmke and Nielsen, *Writing System*, fig. 23d. Nonetheless, the pattern of animals and birds intimates not a landscape of named hills each with full-figure label, but a pictorial arrangement of wild creatures in earth and sky. Rodents or marsupials crouch in the lower register or, in the case of a rabbit or armadillo, press out with both arms, as though supporting the frame above. Interspersed are possible felines and two rattlesnakes, one with obsidian blade. The second register, slightly higher but wedged between the hills below, contains birds, bats, or flying beings, one, seemingly, a spider monkey dropping down from its aerial perch.

50. Karl Taube reminded me of this text, which still needs a definitive drawing.

51. Miller and Martin, *Courtly Art*, pl. 71. Blankenship, "Full-Figure," also emphasizes the appearance of isolated animals in full-figuration. For example at Caracol, Fields and Reents-Budet, *Lords of Creation*, 200, pl. 97.

52. Stuart, "Foreign Past," 387–90, fig. 10.6. The Corte Block is documented in an unpublished drawing shared by David Stuart. Queens, too, can embody time: Prager, "Vessel from Calakmul," 35, figs. 10, 13. For Itzimte, see von Euw, *Itzimte, Pixoy, Tzum*, 19, 21, 23, 31; on captives, Dillon, "Bound Prisoners." For torn clothing on notations of time, see Beetz and Satterthwaite, *Monuments of Caracol*, figs. 20, 21, 25, 26.

53. Blankenship conjectures that the seated signs reflect the function of benches as thrones for lords and rulers. The visual reinforcement may have played a role, although all such texts show seated figures, regardless of their positioning on thrones, altars, stelae, including the lintel from Yaxchilan and the panel from Palenque. For sources, see, Palenque, Robertson, *Buildings of the Palace*, pls. 263–69; for Copan, Webster, *House of Bacabs*, figs. 15–16. In tumpline glyphs, the "burden" varies but a majority refer to "fire," *k'ahk'*, followed, at Naj Tunich, by what may be a glyph for "stone," *tuun*—does this expression correspond to a censer burner? For illustration: Coe and Kerr, *Art of Scribe*, fig. 2; also, Ixkun Stela 2:C3. The Yaxchilan text is from photographs taken by Ian Graham in the Corpus of Maya Hieroglyphic Inscriptions Project, Peabody Museum, Harvard University.

54. Thompson, *Commentary*, 19a, 19b, 20a, 20b, 21a, 21b, 22c, 23c, 68b. The texts refer delicately to mating as ya-TAN-IL, *yatanil*, "his wife."

55. See Bricker, *Humor in Chiapas*, 149, 159–60, for the laughable, almost bestial nature of unrestrained sexuality. Unlike humans, animals mate without regard for the prohibitions of kinship. Human (female)-animal intercourse appears on a few images, perhaps for comic effect; Houston, Stuart, and Taube, *Memory of Bones*, fig. 5.16. The pairings are homosocial and perhaps homoerotic, a display only seldom seen in Maya imagery; see Houston, Stuart, and Taube, *Memory of Bones*, 211, fig. 6.8. For image of water-being: a panel now at the Department of Art and Art History, University of Texas at Austin; Finamore and Houston, *Fiery Pool*, 94, 298, pl. 24.

56. For a view of full-figure signs in specific historical settings, see Martin and Grube, *Chronicle*, 220. They note both the scarcity of such texts and the likelihood that relatively few sculptors created them.

57. Stuart and Law, "Testimony, Oration, Memory." On Ch'orti': Metz, *Ch'orti' Maya Survival*, 125. Relevant discussion of K'ek'chi' Maya notions of the "self, alter, and object for … owners" is in Kockelman, "Mayan Ontology." Seemingly capable of desire, full-figure signs can be understood as reflexive beings, relating to others and being defined by that interaction. They are thus endowed with a sense of self.

58. For discussion, see Looper, *Lightning Warrior*, 104, 176, 188–89, 192–93, figs. 5.31, 6.6, 6.10, Appendix A. Yet

Looper understands the altars to show iconography only, not royal names. The basic source on full-figured Quirigua and Copan texts remains Maudslay, *Archaeology*, vol. 1 (Copan), pls. 44 [St. D], 48 [St. D], 114 [Altar 41], vol. 2 (Quirigua), pls. 8 [St. A], 13–15 [Zoomorph B], 25–26 [St. D]. On crocodiles: Taube, "Earth and Sky," 210, fig. 18. At Quirigua, the animation may not have ended with royal names. Stelae A and C, each dating to A.D. 775, show the standing ruler and, on their reverse sides, dancing gods; Looper, *Lightning Warrior*, figs. 5.12–5.19, 5.21, 5.22. Both stelae were named after the date on which they were dedicated, 6 Ajaw. The east text of Stela A records the number of that day, 6, by means of a head variant, a glyph in incipient animation that is capable, in other contexts, of full-figuration. The variant may not differ substantially from the heads of the dancing gods, whose eyes, which should contain a telltale element (a small axe) are ill-preserved; see Thompson, *Hieroglyphic Writing*, fig. 24. The implication is that the deities, who appear almost as back-ornaments to the king, embody numbers of unprecedented size and elaboration.

59. Stuart, "Unusual Glyphs."
60. Jones and Satterthwaite, *Monuments and Inscriptions*, figs. 78–79; another late monument, Ucanal St. 4:C2, D3, baffles because it contains Maya signs ("cauac," "ajaw") within square cartouches; Graham, *Ixkun, Ucanal, Ixtuz, Naranjo*, 159. For Cotzumalhuapa: Chinchilla Mazariegos, "Flowering Glyphs," 59–66; see also Chinchilla Mazariegos, "Palo Gordo."
61. Urcid, "Written Surface," fig. 6.7. The "hypothetical settings" posited by Urcid require cautious evaluation, however. On Cacaxtla and related sites: Helmke and Nielsen, *Writing System*, 12–20, figs. 7–8, 10; see also Nicholson, "Looped Cord"; Caso, "Calendario Xochicalco," 71–73, figs. 1, 17. Also, Nicholson, "Looped Cord," fig. 13, although the author overlooks the chronological meaning of the carrier.
62. See, e.g., Codex Borgia, 6; also, Codex Vaticanus B, 50, 63. For other full-figure glyphs, see the year-signs on the "Box of Hackmack," in the Hamburgisches Museum für Völkerkunde, Hamburg, no. B. 3767, Nicholson and Keber, *Art of Aztec*, 64–65, pl. 15; also, same catalogue, 41–42, pl. 6, the "Stone of the Five Suns," for a full Cipactli day sign, perhaps the accession date for the Aztec emperor Motecuhzoma II. The full-figure glyphs on sculpture appear to express a special prominence, as labels for years or as dates linked to royal succession; see Codex Vaticanus B, 54. On the mythic being: de Sahagún, *Florentine Codex*, 68–70. The name glyph of the ruler, Ahuitzotl, occurs on a plaque from Tepoztlan, a piece now in the Museo Nacional de Antropología, Mexico City. For a recent view of late Aztec hieroglyphs, mostly toponymic, see Robertson, *Aztec Picture Writing*, passim. A useful treatment, it nonetheless comments little on the ontology of signs. I thank Claudia Brittenham for drawing me to the work of this author.
63. Lacadena, "Scribal Traditions," figs. 4a, j, k, 10e-h, 12. On images and their social existence: Houston, Stuart, and Taube, *Memory of Bones*, 72–76.

## Chapter 4. A Beauty That Cannot Die

Epigraph: John Webster, *The Works of John Webster, Volume 2: The Devil's Law-Case, A Cure for a Cuckold, Appius and Virginia*, edited by David Gunby, David Carnegie, and MacDonald P. Jackson (Cambridge: Cambridge University Press, 2003), 160.

1. Nehamas, *Only a Promise*, 78. On disgust: Menninghaus, *Disgust*, which has, on 22–24, strong words of a disapproving sort for Miller, *Anatomy of Disgust*. On symmetry and beauty: For their part, physicists and mathematicians find "beauty" in symmetry and elegant solution of conjectures; Stewart, *Beauty Is Truth*, 279; here, in no help at all to art historians, "beauty" boils down to "the human sense of pattern," "truth" to a "reality check." Scarry, *On Beauty*, 46, also allies "beauty" with "truth," viewing the first as a kind of cultural fuel: "beautiful things have a forward momentum, the way they incite a desire to bring new things into the world." As with almost all such philosophy, the reader searches in vain for any reference to beauty or relevant thought outside the Western world: not denied, just ignored. Only one illustration or factum in Nehamas, *Only a Promise*, an otherwise admirable and lucid book, falls outside Europe or the United States, and that image highlights the uncertainties of what "art" might be; 38, fig. 26. A head of Orlan, the French artist and *provocatrice*, is said to be a "surgical self-transformation"—in fact, it reproduces a photographic overlay of an unremarked design from an Olmec mask of c. 900 B.C.; 38, fig. 27. The presumed inconsequentiality of separate traditions may be unconscious, but it is no less troubling when basic universality is the claim. A useful compendium on the non-Western appears in Coote and Shelton, *Anthropology, Art, Aesthetics*. Anger about inattention to other systems of aesthetics combusts in Nuttall, *Beautiful/Ugly*, 6–29, with choice words for Immanuel Kant's dismissive contempt of Africans. Nuttall, 28, sees beauty in Africa as having a necessary association with "a social inflected ugliness"; it "criss-cross[es] the senses," with defined limits that involve an "anti-aesthetic." On groupings: Nehamas, *Only a Promise*, 81–82. Also, Guyer, *Values of Beauty*, esp. 73–74, which explores David Hume's claim that such judgments accrue through careful reflection, that certain judges are privileged, and that the most worthy cynosures of beauty, such as the poetic force of Homer, emanate an intrinsic, absolute quality. On privilege:

Bourdieu, "Historical Genesis." Bourdieu thunders forth in *Distinction*, 7, which states that, in its "sublimated, refined, disinterested, gratuitous, distinguished" form, aesthetics, in the sense of taste making and taste discrimination, serves "a social function of legitimating social differences." That the argument is partly persuasive does not absolve it of simplistic reduction. What the Classic Maya did not read: Danto, *Abuse of Beauty*, which, on 40–44, reroutes non-Western concepts through … Kant and Hegel's benighted views of them. And much other literature, too. I have measured: books on aesthetics and beauty at the Clark Institute, a comprehensive research library on art history, fill some 27 linear feet of shelving. Daunting, they would take a career to read, assimilate, and critique.

2. Gell, *Art and Agency*, 3, 4, 81, 82. In fairness, these words were published in a posthumous book. Gell did not live to revise his draft. For Maya courts: Houston, "Best of All Things," esp. 86–89. On accentuation of aesthetic judgment as a touchstone of "gentility," see Bushman, *Refinement of America*, xv–xix. The genesis of such discussion remains Simmel, "Fashion." Exploration of Maya courts in Houston and Inomata, *Classic Maya*, 150–58.
3. The links of beauty to goodness, and the limits of that bond, find a reverberant echo in Western philosophy, e.g., Danto, "Beauty and Morality." On colonial Tzotzil references: Laughlin, *Great Tzotzil Dictionary*, 1:185, 314, and 324. Colonial Yukatek: Barrera Vásquez, *Diccionario Maya Cordemex*, 185, 314, 320. Nonetheless, the prefix in one relevant term, *bats'uts*, is like Yukaktek *bach*, an intensifier meaning "very, many, truly," p. 167. Tzendal: de Ara, *Vocabulario tzeldal*, 413. Ch'orti': Taken from the Charles Wisdom lexicon at the University of Chicago, transcribed by Brian Stross. This term may be spelled **ba-ni**, *baan*, on a vessel from the Mundo Perdido complex at Tikal, Guatemala; Laporte and Fialko, "Mundo Perdido," esp. fig. 68. Postclassic texts: Dresden Codex, 8a, 7a, with an occasional negation, spelled **ma-tzi-IL** to render *ma-'utzil*, "not goodness." Mythic scenes, often recording conversations, use **u-tzi** > *uutz*, on K4999, 7727, both in association with a high deity known to scholars as "God D." A rare spelling from a historical setting appears with a youth on the East Alfarda, Temple XXI, Palenque; Schele and Mathews, *Bodega of Palenque*, pl. 555.
4. My thanks to Brigitte Kovacevich for this information; Chenault, "Technical Analysis," 64–66, see also chapter 3, fn. 27; Chenault, "Jadeite, Greenstone." An astonishing source on Maori jadeworking, involving nephrite, also from Kovacevich, indicates that polishing could go on for months, years, and, for one famous object, the *mere* (club) of Te Heu Heu, a paramount chief, for generations; Tregear, *Maori Race*, 250–52. For recent review of jade: Taube and Ishihara-Brito, "Stone to Jewel." Value: for a relevant if hastily written source, a flow of proposition, Graeber, *Theory of Value*, 257–61.
5. Taube, "Flower Mountain."
6. Taube, "Olmec Maize God." Color: Houston et al., *Veiled Brightness*, 40–42, 65–66. Plumage: Navarijo Ornelas, "Plumas tocados." Dance and the Maize God: Taube, "Maya Maize God." To Karl Taube goes credit for this insight, and for resuscitating the god from scholarly oblivion; Taube, "Classic Maize God."
7. Houston, Stuart, and Taube, *Memory of Bones*, 127. On shifting aesthetics: Taube and Ishihara-Brito, "Stone to Jewel," 152–53. On speech scrolls and their impact: Houston, Stuart, and Taube, *Memory of Bones*, 141–52.
8. On red and yellow: Houston et al., *Veiled Brightness*, 37–40, 50–52. On surfaces: Kerry Hull reports to me that, in use, Ch'orti' often focuses on surfaces. On line: that the Classic Maya focused on quality of line, its "facture" or means of execution, forms the central argument of Herring, *Poetics of Line*, esp. 2, 9; Maya imagery, even the built landscape, rests on a "calligraphic habit of mind … an apparent device of visible artifice, a poetics of line"; for "facture" and artistic process, see Zurier, "Facture." Thoughtful and carefully phrased, Herring's book may persuade less than it should. By one reading, it deemphasizes color, shape, conjunctures of buildings and things, the evident Maya pleasure in shifting tones or texture, and the interplay of these within their aesthetic universe; Houston, "Review." On borrowed tropes: Houston and Inomata, *Classic Maya*, 145–46. On royal longevity: Houston, "Archaeology and Writing," esp. 22–23, Table 1. In a personal communication, Andrew Scherer cautions that Classic Maya demography is statistically recalcitrant. On gifting or tributary scenes: Stuart, "Architecture and Ritual."
9. Colonial Tzotzil: Laughlin, *Great Tzotzil Dictionary*, 1:336. Colonial Yukatek: Barrera Vásquez, *Diccionario Maya Cordemex*, 93, 358, 831. Comparable links between strength and hardness (*tzatz*) appear in Colonial Ch'olti', a language close to the inscriptions; Robertson, Law, and Haertel, *Colonial Ch'olti'*, 314, 320–21. On possession: A useful source on such name-tagging is, among others, Stuart, "Hieroglyphs on Vessels." On gifts: Writing of sixteenth-century Yucatan, Bishop Diego de Landa is eloquent on the ubiquity of gifts in many social encounters; Tozzer, *Landa's Relación*, 92, 97.
10. Taube and Ishihara-Brito, "Stone to Jewel," 140, notes that, in Aztec thought, birth, presumably of high-borns, was said to resemble the "drilling or boring of a precious stone"; citing de Sahagún, *Florentine Codex*, Book 6, 183, 202.
11. On decay: one of the few studies is Moore and Gasco, "Perishable

Structures." On strangler figs: Janzen, "Be a Fig"; Daniels and Lawton, "Habitat Preferences."

12. On Egyptian evidence and European memento mori: Assmann, "Fest des Augenblicks." On the "replacement heads" from the Old Kingdom, objects that bear some early relation to the decomposing body, see Tefnin, *Art et magie*. John Baines kindly supplied these sources. On admonishment: Kammel, "Looking Death." On the meaning of physical corruption: the *danses macabres* of the later Middle Ages juxtapose life in high frolic with the tattered flesh of transi, figures in decay, differing not by individual features or category of person but by stage of decomposition; for the *danse*, see Utzinger and Utzinger, *Itinéraires des Danses*, esp. 263–72; for tombs that feature transi, see Cohen, *Metamorphosis of Death*, which also highlights the evolving meanings of such corruption, from a comment on worldly conceit ("you will revert, as we have done, to a fetid cadaver, food and tidbits for worms") to a symbol of regeneration and eternal life, 13, 179. The overall intent is moral instruction. On the triumph of death, see Scaramella, "L'Italia dei Trionfi."

13. On the complex reference of still-life paintings, which go beyond mere reflection on short life: Berger, *Caterpillage*. The intended meaning of still-lifes is far broader, not only a *desengaño del mundo*, "disillusionment of the world," as in Cherry, "Presence of Things." On beauty and decay in the Middle Ages: Binski, *Medieval Death*, 136. On love and death: Binton, *Love Beyond Death*. On a Chinese aesthetic of the ephemeral, Roberta Bickford was most helpful with sources: a central text on the world-in-flux is Watson, *Chuang-Tzu*, on a figure who flourished c. 300 B.C.; e.g., "I received life because the time had come; I will lose it because the order of things passes on," 84. The trope of blossoms and trees is explored in Bickford, *Ink Plum*, 49. On the meaning of decay in Japan: Lee, *Reflections of Reality*, 33, fig. 14; also, Chin, "Gender of Buddhist Truth," esp. 295–96, 311. On Aztec poetry: Martínez, *Nezahualcoyotl*. A standard source on the folkloric fun of the Mexican Day of the Dead, partly colonial in origin, partly a creation of Mexican politics and journalism, is Carmichael and Sayer, *Skeleton at the Feast*; also, Brandes, *Skulls to the Living*. The *Santa Muerte*, "Holy Death," surges in popularity among Mexican gangs, with meanings far beyond Catholicism; Chesnut, *Devoted to Death*, esp. 14–18.

14. Léon-Portilla, *Fifteen Poets*, 80, 82, 91. On Aztec notions of beautiful ephemerality and its varied meanings, origins, and functions: Brotherston, "Nahuatl Origins," 393–408; Clendinnen, *Aztecs*, 213–35; Damrosch, "Aesthetics of Conquest," 102–6, from which I have drawn the quotation about "excelling"; and Tomlinson, *Singing of the New World*, 30–31, which suggests that Aztec song is not, as Clendinnen would have it, about immortal worlds behind the present one, but "godly and human realms … persuasively materialized," 31.

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